

Aspects of Complexity at Arslantepe

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Disclaimer

I, Paolo Guarino, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis. All translations of quoted material from foreign language sources are my own.

Abstract

This doctoral research examines the multi-period site of Arslantepe (Malatya – South-eastern Turkey). It identifies archaeological evidence for social complexity within the site's Late Chalcolithic (period VII in Arslantepe chronology) community and seeks to define the character and nature of this complexity. Craft specialisation and differential consumption is assessed through an analysis of the production and distribution of artefacts with a comparative analysis of the functional characteristics of monumental architecture and other buildings. A specific focus is placed on an analysis of the Arslantepe VII ceramic assemblage to investigate what this can tell us about the organisation of its production. The overarching aim is to assess the degree of economic centralisation and redistribution activities within Arslantepe's developing socio-political organization.

The evidence from Arslantepe is then reconsidered within the larger picture of 4th millennium Greater Mesopotamia, and wider debates on the formation of social complexity. A comparison of Arslantepe VII with contemporaneous sites in the region facilitates a revaluation of the interpretative models used to explain the emergence and development of complex forms of socio-political organization during the 4th millennium BC in Greater Mesopotamia.

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1. Aspects of complexity at Arslantepe

1.1 Research statement

This doctoral research examines the archaeological evidence from excavations at the multi-period site of Arslantepe (in the Malatya region – south-eastern Turkey). By exploring the material culture I aim to analyse evidence for social complexity within the site's Late Chalcolithic (Period VII in Arslantepe chronology) community and to assess and define the character and nature of this complexity. Among the indicators that I use to investigate the socio-political organization of the community of Arslantepe VII are building forms (including monumental architecture), artefacts (with evidence of craft specialisation), and the spatial distribution of artefacts within different buildings (including some with evidence for economic centralisation and redistribution activities). A specific focus is placed on the Arslantepe VII ceramic assemblage, its production organisation and the patterns of its distribution across different contexts within the settlement; and on the comparative analysis of the functional characteristics of domestic and non domestic architecture.

The evidence from Arslantepe, as defined by the analysis of its material record, is then reconsidered within the larger picture of 4th millennium BC Greater Mesopotamia. A comparison of Arslantepe VII with other contemporaneous sites in the region facilitates a revaluation of the interpretative models used to explain the emergence and development of complex forms of socio-political organization during the 4th millennium BC in Greater Mesopotamia. In the final chapter, I evaluate how these results can contribute to wider debate on the formation of social complexity.

1.2 Research Aims and Objectives

This research has a series of aims and objectives that develop from specific issues related to the evidence from Arslantepe VII and feed into broader questions that must be placed within a wider chronological and geographical frame.

Aim 1. To investigate the socio-political organization of the Chalcolithic community of Arslantepe and the nature of its social complexity in terms of the degree of economic centralization, the degree of craft specialization, elite control over craft production and the degree of integration or independence within the different units of this community through:

Objective 1. Characterisation of the ceramic assemblage; analysis of the organisation of the ceramic production; and study of patterns of use and distribution of the artefacts (comparison of pottery distribution between domestic and public contexts in the settlement).

Objective 2. Analysis of the archaeological contexts through the characterisation of domestic and non domestic architecture and the degree of monumentality.

Aim 2. To explore the role of Arslantepe within the context of Greater Mesopotamia during the 4th millennium BC. This will include:

Objective 1. An overview of the evidence, from the region of the Malatya plain and its neighbouring areas to the north of the Anti-Taurus Mountains, to define potential networks of contact between Arslantepe VII and contemporaneous settlements in this northernmost part of Greater Mesopotamia.

Objective 2. An analysis of the emergence of social complexity in other key sites in northern Mesopotamia (south of the Taurus range) and of the interregional relationships within 4th millennium BC northern Mesopotamia.

Aim 3. To explore the relevance of Arslantepe VII in the context of Greater Mesopotamia for our understanding of the formative processes of early complex societies.

Objective 1. Using the results of my analysis I will discuss to what extent the evidence from Arslantepe VII, in the contexts of 4th millennium BC Greater Mesopotamia, can contribute to the debate on the emergence of social complexity in past communities.

The above aims and objectives are discussed in a more comprehensive and discursive form in Chapter 4, where they are integrated with details on the methodology applied to implement the individual objectives.

1.3 Arslantepe VII as a case study for emergence of complexity in Greater Mesopotamia

In the past fifty years Arslantepe has been given a prominent place in the debate on 4th millennium BC communities in an area generally referred to as Mesopotamia, despite only being located in the northern outskirts of the region. The word ‘Mesopotamia’ (ancient Greek composite word meaning ‘between the rivers’) was originally used to indicate the region enclosed within the course of the Tigris and the Euphrates rivers which roughly corresponds to the area covered now by the state of Iraq. The expression ‘Greater Mesopotamia’ includes all those regions to the north and the east of the Mesopotamian alluvium that shared important cultural traits over the millennia since the Neolithic (Frangipane 1998, 195) and played a fundamental part in the cultural development of the whole area. I refer in particular to the western part of Iran on the border with Iraq, the Jazira region in north-eastern Syria and south-eastern Turkey (Fig. 1.1). This whole area has been the location for intense human activity for several millennia and extensive archaeological investigation for over a century (see Chapter 3).



Figure 1.1 – Greater Mesopotamia and Arslantepe (adapted from Google Earth)

The site of Arslantepe, identified over a century ago in the plain of Malatya (south-eastern Turkey), in the northern outskirts of Mesopotamia, has been investigated and managed by an Italian archaeological expedition since the 1960s, and is now under the direction of Professor Marcella Frangipane from University of Rome ‘La Sapienza’; as a member of her team I am charged with undertaking a comprehensive study of the ceramic assemblage of Arslantepe Period VII. This (‘Period VII’) is the name given by the Italian team to an archaeological horizon composed of several building phases dating roughly from about 3800 to 3350 BC (Late Chalcolithic 3 and 4 following the chronological framework suggested by Rothman and the other contributors of the Santa Fe volume on Uruk Mesopotamia (Rothman 2001, 5-8)).

During Period VII the mound of Arslantepe underwent its greatest expansion and the earliest monumental buildings so far identified were constructed on the mound. Due to their dimensions and characteristics in comparison with other contemporary structures, these monumental buildings were interpreted as evidence of centralized administration. On the floor of a monumental tripartite building found on the mound’s western edge, more than a thousand ‘mass-produced’ bowls were

scattered or stored together with a number of clay sealings; these are interpreted as evidence of redistribution (D'Anna and Guarino 2010; Frangipane 2000; 2001a; 2002; Guarino 2008); the definition mass-produced bowls refers to a wide range of bowls that were produced, used and discarded in large quantities for their ubiquity have become a trademark in 4th Millennium Mesopotamian sites. Alongside these structures, excavations have also unearthed several smaller contexts with more modest features which have been interpreted as domestic buildings (Palmieri 1969; 1978); this evidence offers the opportunity to explore the differences between functionally different areas within the site.

The Arslantepe VII pottery assemblage comes from a variety of contexts, within a chronologically controlled sequence, and includes many ware classes produced with different technologies and a range of shapes. This provides a data-set of exceptional value as it permits an analysis of the organisation of the ceramic production, which is central to assessing the degree of complexity within the Arslantepe VII community.

This research assess the degree to which the study of Arslantepe VII's pottery assemblage can be used to characterise aspects of socio-political organisation at the site; by considering the forms of craft specialisation, standardisation of production, social differentiation and organisation of labour.

The archaeological evidence, in terms of architectural remains, spatial organisation and *in situ* pottery assemblages from Period VII of Arslantepe provides an opportunity to address issues relating to the social and economic organisation of the community. The long chronological duration of Period VII also offers the opportunity to monitor changes and transformations occurring across three centuries. Finally, due to its specific geographical location, between the Mesopotamian alluvium and the Anatolian and Trans-Caucasian regions, Arslantepe provides an essential source of information for understanding the political and economic relations in reference to different regional contexts during the formation processes of the earliest complex societies.

1.4 Research context: emergence of social complexity in 4th millennium BC Mesopotamia

Like other Late Chalcolithic sites in Greater Mesopotamia, the material remains in Arslantepe VII suggest crucial changes in social organisation. During the 4th millennium BC Greater Mesopotamia became the theatre of the emergence of some of the earliest complex societies. Archaeological evidence shows the appearance of large urban centres with strongly centralised economies associated with an imposing ideological apparatus (Adams 1981; Frangipane 1996; Nissen 1988; Pollock 1999). Several significant 4th millennium BC settlements have provided evidence of ceremonial areas, with monumental buildings of outstanding dimensions, associated with administrative material and evidence of redistribution activities. During the 4th millennium BC administrative techniques appear to become more complex as suggested by the introduction of cylindrical seals, bullae and tablets. It has been argued that by the mid 4th millennium BC the ruling sectors of society monopolised resources and controlled dependent labour (Johnson 1987; Pollock 1999, 93-95). It has also been argued that specialisation in pottery production developed under the pressure of an increasing administrative demand (Frangipane 2000, 441; Pollock 1999, 98).

Indeed for decades archaeologists working in the Near East have discussed the emergence of early complex societies in the Mesopotamian alluvium during the 4th millennium BC. The debate has focused alternatively on the origins and characteristics of this complexity, and the nature of power relations between different regions in order to explain the apparent 'diffusion' of the characters of complexity from one area to another. Some archaeologists have interpreted the growth of social and political complexity as a phenomenon that originated in southern Mesopotamia. Guillermo Algaze approached the problem with a south-centred perspective and assumed an expansion of economic and political influence from the complex southern polities over the neighbouring areas to the north (Algaze 1989; 1993). Applying the 'World System' model to 4th millennium BC Mesopotamia Algaze considered the communities of the Mesopotamian alluvium as the central core, and the regions of Upper Mesopotamia as peripheries that were

exploited by the more powerful South (for the original formulation of 'World System' model see (Wallerstein 1974). The model suggested by Algaze has been extremely controversial as it does not pay enough attention to the evidence from sites in northern Mesopotamia. Evidence from 4th millennium BC sites in northern Syria, Iraq, Iran and south-eastern Turkey shows a more multifaceted situation than originally proposed by Algaze. Sites like Tell Brak (McMahon and Oates 2007; Oates et al. 2007), Tepe Gawra (Rothman 2002) and Hamoukar (Ur 2010) in Syria; Hacinebi (Stein et al. 1996) and Arslantepe (Frangipane 1993; 2001b) in Turkey show clear signs that economic and socio-political complexity emerged in northern Mesopotamia before the "expansion" of Uruk culture. Therefore an interpretive model that assumed *a priori* the dominance of the southern polities on the sites located on the 'peripheries' of Mesopotamia has been rejected by many archaeologists as unsuitable. The polities outside the Mesopotamian alluvium should be considered heartlands in their own right and not peripheralized through the filter of a south-centred perspective.

It is within this debate that the present research is generated. The new evidence provided by recent excavations at Arslantepe allows us to reconsider the part played by Arslantepe VII in relation to 4th millennium BC northern Mesopotamia. Since the 1980s Palmieri and Frangipane claimed that evidence from Arslantepe VII and VI A argues for the autonomous formation of centralised economies and complex forms of social organisation in northern Mesopotamia (Frangipane 1993; Palmieri 1985). The new data provided by more recent fieldwork appears to corroborate this interpretation, but it requires a better quantified and qualified assessment of the specific nature of social organisation at Late Calcolithic Arslantepe. This study seeks to undertake this more detailed assessment and analyses the specific forms of social and economic organisation that were in place prior to Uruk's influence, in order to evaluate how developments within Arslantepe's own cultural complexity would have shaped the character of interaction with Uruk.

While my research contributes to the debate on the diffusion of Uruk culture and early complex societies in Mesopotamia, it focuses largely on the dynamics internal to the site of Arslantepe VII itself rather than interregional relationships. I feel that we will only be able to critically evaluate our assumptions about the larger picture of 4th millennium BC Mesopotamia through a detailed assessment of material practices within specific communities rather than imposing generalising models derived from a southern Mesopotamian perspective.

In a recent work on the economic structure of Arslantepe VI A, Frangipane, argues that the debate on the dynamics and characteristics of interregional relationships in 4th millennium BC Mesopotamia *“cannot properly move forward without a fundamental understanding of the functioning of local economies, local production relations, and the economic policies pursued by the central institutions in each of the areas concerned”* (Frangipane 2010).

This investigation of the nature of the social organisation of the community that lived during the period of Arslantepe VII seeks to contribute new evidence to the debate on 4th millennium BC Greater Mesopotamia.

1.5 Original contribution: a fresh look at social dynamics

Archaeological materials from Arslantepe VII were published in preliminary reports by Alba Palmieri (1969; 1978); in two articles on the ceramic materials by Francesca Trufelli (1994; 1997) and by Marcella Frangipane in articles concerned with the socio-political developments of the Late Chalcolithic at Arslantepe (Frangipane 1993; 2000; 2001b; 2002). My contribution owes much to this earlier work which helped to develop a formal typology for the pottery assemblage, defining a chronological framework of reference with other northern Mesopotamian sites and especially in identifying the potential offered by the evidence from Arslantepe VII to address issues related to the emergence of early complex societies in Mesopotamia. With the benefit of this earlier work, I analyse unpublished materials found in recent excavation seasons, using theoretical models and methodological approaches that provide a comparative and quantitative

analysis of the pottery in relation to the specific organisation of the site and allow me to investigate the social structures of the community living at Arslantepe during Period VII.

My data analysis emerges from a review of theories relating to the 'materialisation of ideologies' and 'feasting' (see Chapter 2) as a key interpretive framework for some of the most imposing remains at the site such as the monumental building found on the western edge of the mound dated to the end of Period VII. Whilst these approaches support and complement the interpretation that this building was the centre for the redistribution of centralised goods (D'Anna and Guarino 2004; 2010; Frangipane 2000; 2002; Guarino 2008), they also offer the opportunity to observe and investigate the social dynamics behind these redistributive activities. These preliminary interpretations will be examined using the combined analysis of the architectural layout and distribution of *in situ* materials.

My analysis of the distribution of the portable artefacts across Arslantepe VII contexts is based on a model that explores the social implications of the differential distribution of artefacts within a settlement ((Turkon 2004) and see Chapters 2 and 5 for further discussion). With a specific focus on the distribution of the ceramic containers, grouped by their functional characteristics, I apply this model in order to reconstruct the possible uses of the different buildings that have been excavated to date and review the implications of this interpretation in the social setting of the community.

I also employ specific methods (for further discussion see Chapters 2, 3 and 4) to determine the degree of specialisation of the pottery production paying particular attention to the organisation of the manufacture and the degree of formal standardisation of the ceramic vessels.

The combination of these theories and methods is aimed specifically at facilitating the investigation of the social organisation of the community that produced the archaeological record under study; they should potentially offer new

interpretive directions and a more comprehensive picture of the community of Arslantepe VII. This in turn will feed into the wider debate on Greater Mesopotamian complex societies bringing fresh data into the discussion.

1.6 Thesis outline

[Chapter 2](#) gives an overview of Arslantepe's geographic location, environmental setting and a history of archaeological intervention at the site; it explains Arslantepe's internal chronology, and briefly describes the main data set of the present work; the architectural remains and pottery assemblage of Arslantepe VII.

In [Chapter 3](#) I review archaeological debates about the emergence of complexity, with a specific focus on how complexity has been identified and discussed in relation to social change in 4th millennium BC Mesopotamia. In the first part of the chapter I outline some of the main phases of the theoretical debate on complex societies, the influence of this debate in Mesopotamian archaeology and the contribution Near Eastern archaeologists have made to wider theoretical debates about social complexity and state formation. I then discuss current debates about the materialisation of ideologies, feasting, differential distribution of artefacts and craft specialisation and consider the relevance of these theoretical models for the analysis and characterisation of the social dynamics of Arslantepe VII. Too often complexity has been assumed and asserted without identifying how social hierarchies are enacted or the specific nature of social relationships. This is particularly relevant when we consider the nature of complexity at Arslantepe prior to Uruk influence, with the need to assess the degree to which the complexity developed and expressed at Arslantepe was similar to, or distinct from, that of other sites in Greater Mesopotamia. For this reason, the primary analysis on the subsequent chapters focuses on the more specific issues of how production and consumption practices relates to domestic, elite and monumental settings, and I will return to what this can tell us about the nature of complexity in Arslantepe and wider Mesopotamia in the concluding chapters.

In [Chapter 4](#) I outline in detail the methodology used during this research by defining the relation between the aims and objectives of the research and the specific methodology used to achieve them. I discuss how the analyses of archaeological contexts and pottery assemblage were developed from the collection of the data and the creation of the database as part of the fieldwork activity to the various analytical steps undertaken when working on the digital archive.

In [Chapter 5](#) I present my analysis of the pottery assemblage from Arslantepe Period VII identifying and quantifying specific aspects related to the organisation of its production including manufacture and formal standardisation. I first discuss the functional categories identified and used in my analysis, and the characteristics of the manufacturing technologies employed in the production of Arslantepe VII ceramics. I then move on to discuss two distinctive elements of the assemblage: 'mass-produced bowls' and the potters' marks and discuss how these contribute to our understanding of the organisation of ceramic production across time during Period VII. I also identify evidence for redistribution activities associated with the last phase of the period. In order to address the issue of specialised production, I analyse the degree of formal standardisation within the assemblage. In the final section of the Chapter I review a wider geographic area in order to understand the possible networks of contacts of Arslantepe VII. After a review of the archaeological evidence in the regions north of the Anti-Taurus Mountains I compare Arslantepe VII with other contemporary sites in northern Mesopotamia. At the end of each section some interpretive remarks are proposed but these interpretations and their wider significance are drawn together more fully in Chapter 7.

In [Chapter 6](#) the buildings from Arslantepe VII are described in detail. Particular attention is paid to their architectural characteristics and the distribution of the portable materials within them (focusing particularly on the ceramic containers). The aim is to infer the function of the various buildings from the evidence of their structural characteristics and the materials found on their floors. Identifying

differences between domestic structures and buildings with public function will offer us some insight into the socio-political organisation at Arslantepe VII.

In [Chapter 7](#) the interpretative lines introduced in the previous two chapters are drawn together in an attempt to characterise the nature of complexity in Arslantepe VII and how this might have been experienced by its residents. The theoretical models on craft specialisation and feasting discussed in Chapter 3 are reconsidered in light of the results from my study of Arslantepe VII. The significance of these results for the development of complexity within the community is assessed by comparing this with the remains from the preceding Period VIII and the subsequent Period VIA and also with the evidence from other key sites in 4th millennium BC northern Mesopotamia. Through the interpretation of Arslantepe VII remains and the comparison with other contexts I try to redefine the role of Arslantepe VII in its wider network of relationships between different areas of northern Mesopotamia and discuss the relevance of the site in the process of formation and structuration of some of the earliest complex societies in the Near East. Finally, in light of this discussion, I consider how the results from the analysis of Arslantepe VII can feed back into the general debate on the emergence of complex societies as outlined in Chapter 3.

In the concluding [Chapter 8](#), after a brief summary of the original results presented in this work I discuss the strengths and weaknesses of the theoretical and methodological models applied to my dataset; the merits and the shortfalls of the overall research; and the issues that remain unresolved in order to define the agenda for future work on these topics.

2. Arslantepe: a background

2.1 Introduction

The aim of the present chapter is to introduce the reader to the site of Arslantepe through a discussion of its geographic and environmental setting; the history of the archaeological work carried out at the site, the chronological framework of the site and its main archaeological phases with specific attention paid to those that are most relevant for the present work.

2.2 Arslantepe and Greater Mesopotamia: an overview



Figure 2.1 – Greater Mesopotamia and Arslantepe (adapted from Google Earth)

In the past fifty years Arslantepe has been given a prominent place in the debate on 4th millennium BC communities in an area generally referred to as Mesopotamia, despite only being located in the northern outskirts of the region (Figure 2.1). The word ‘Mesopotamia’ (ancient Greek composite word meaning ‘between the rivers’) was originally used to indicate the region enclosed within the course of the Tigris and the Euphrates rivers which roughly corresponds to the area covered now by the

state of Iraq. The expression 'Greater Mesopotamia' includes all those regions to the north and the east of the Mesopotamian alluvium that shared important cultural traits over the millennia since the Neolithic (Frangipane 1998, 195) and played a fundamental part in the cultural development of the whole area. I refer in particular to the western part of Iran on the border with Iraq, the Jazira region in north-eastern Syria and south-eastern Turkey (Figure 2.1). This whole area has been the location for intense human activity for several millennia and extensive archaeological investigation for over a century (see Chapter 3).

It is within the wider boundaries of Greater Mesopotamia that Arslantepe finds its context. The site is located in the Malatya plain, along the course of Upper Euphrates River. The plain is enclosed within the range of Anti-Taurus Mountains; these effectively mark the northern limit of the Jazira plain which is, in turn, the northern border of the Mesopotamian Alluvium itself. Given the size of Greater Mesopotamia it is not surprising that it encompassed a range of natural ecosystems from the marshy plains of the southern Alluvium to the steppe of the Jaziran and the Anti-Taurus Mountains. Accordingly, past communities settling in each of these regions were able to exploit different resources and faced different limitations and difficulties.

The geographic and environmental setting is seen by some as determinant in the creation of the necessary conditions for the development of the early states in southern Mesopotamia (Adams 1981; Algaze 2001). The specific climatic and environmental conditions present in the Mesopotamian Alluvium between the 5th and 4th millennia BC are considered accountable for creating an economic advantage for the southern Mesopotamian communities in relation to their neighbours (Algaze 2001, 2008; see also Frangipane 1998, 199; and Ur 2010 about the Khabour area). Although the environment is only one of the elements that shape human economy and settlement choices environmental aspects are important in the selection of subsistence strategies and developing economic organisation. For this reason the two following sections are intended to provide a description of the geological and environmental characteristics of the plain of

Malatya in order to highlight the natural resources available to Arslantepe's community during the 4th millennium BC as well as its challenges.

2.3 Anatolian geology

The Anatolian peninsula sits between the converging African and Eurasian tectonic plates, whose movement has given rise to the complex system of mountain ranges that limit the northern and southern edges of the Anatolian Plateau (the Pontic Mountains across all of northern Anatolia and the ranges of Taurus and Anti-Taurus to the south of the central plateau) (Sagona and Zimansky 2009, 2). This tectonic activity is also responsible for the widespread volcanism in the region. This phenomenon must have had a significant impact on the lives of Anatolian people, not only for the most obvious risks and difficulties of occupying a land made of lava, but also for the exploitation that humans have made of some of its 'by-products'. This not only includes the fertile soils that come from the weathering of volcanic rock but also the mineralised rocks which are essential for the formation of some important metallic ores (Sagona and Zimansky 2009, 3). Indeed, central and eastern Anatolian communities have been known to exploit copper, iron, silver and gold ores in antiquity, developing specialised crafts and long distance trades of raw materials as well as final products. The same occurred with obsidian; in prehistoric times this volcanic glass was used for the production of tools and was exported both as raw material and as worked objects. The exploitation of these natural sources was crucial for the organisation of ancient Anatolian communities and for their relationship with the 'outer world'.

2.4 Malatya Plain, environment and resources

The aim of this section is to describe the environment of the site of Arslantepe during the 4th millennium BC and the natural resources available to its inhabitants. To do so, I use a series of publications from the last 30 years on the faunal remains from Arslantepe Period VII and on the hydrological characteristics of the plain of Malatya.

At time of writing, the top of the mound of Arslantepe provides a far-reaching view of the fertile plain of Malatya covered mainly with apricot orchards, extending to the Euphrates River (Figure 2.2), now swollen into a lake due to the construction of the Karakaya dam, completed in 1987.



Figure 2.2 - The plain of Malatya from the mound of Arslantepe. The Euphrates River lies between the plain and the mountains in the background. (Photo by the author 2009).

The plain (Figure 2.3), at circa 900 meters above the sea level, stretches in a south-east north-west direction and is roughly 60 km long and 30 km wide (Palmieri 1978, 45). To the south of the plain, the mountains of Anti-Taurus divide the area of Malatya and Upper Euphrates from the Jazira steppe of south-eastern Turkey and northern Syria; to the north the plain is bordered by the Euphrates that flows into the plain from north-east and exits the plain towards south-west.



Figure 2.3 - A satellite view of the plain of Malatya (adapted from Google Earth)

In this stretch the Euphrates receives water from a number of tributaries that cross the plain in several directions, the Kuruçay in the northern part of the plain, the Tohma in the central section and the Sultan Suyu along the main axis of the plain (*ibid* 45). The communities that lived in Arslantepe would have benefited from its strategic location in the middle of a fertile plain, naturally protected by the mountains and relatively close to natural sources of flint, obsidian, copper and timber; the Euphrates, about 15 km away from the site, must have been crucial for movement of both people and goods from and to other regions crossed by this river.

2.4.1 Water supplies

Today the Malatya plain is characterised by a semi-arid climate with no more than 350-400 mm of rainfall a year with higher temperatures during the dry season (Palmieri 1978; Marcolongo and Palmieri 1983). In such circumstances the presence of ground water is an essential condition for long lasting settlement and the development and endurance of plant cover (Palmieri 1978, 45; Marcolongo and

Palmieri 1983, 619), and greatly influences the potential for agricultural production. Directly related to the vicinity of the hills and mountains to the south and south-east of the Malatya plain is the abundance of ground water that flows in a north-north-west direction and emerges in the vicinity of the site of Arslantepe in numerous springs which provide fresh water all year round (Marcolongo and Palmieri 1983, 624). The plain is also crossed by several streams and small rivers that flow towards the Euphrates, to the north of the plain. The large quantity of water sources makes the plain of Malatya a particularly rich and fertile oasis in the otherwise steppe-like environment (Palmieri 1978, 45). The environmental conditions of the plain may have been even more favourable during prehistoric times when, according to Erinc's analysis of rivers and lake terraces in eastern Anatolia (Erinc 1980), the yearly rainfall was more abundant than at the present days and *'most of the area was occupied by forest-steppe and open forest'* (Bököny 1983, 853). Also, according to Marcolongo and Palmieri during the Chalcolithic the Euphrates' alluvial plain was probably wider than today creating an even larger discharge area (Marcolongo and Palmieri 1983, 627).

2.4.2 Animal exploitation and the environment

In his account of the faunal remains from Arslantepe VII layers Sandor Bököny suggested that during this period animal husbandry was already well established at the site (Bököny 1983, 582). Furthermore, although several wild species were found among the faunal remains, domesticated animals represented the main source of meat intake for the population. Cows, sheep, goats and pigs were the most frequent species among the domestic animals and must have provided up to 90% of the meat consumed at the site (Bartosiewicz 2010, 122) but remains of domestic dog, horse and ass were also found. The differential distribution of the domestic animals remains in the various archaeological contexts at Arslantepe VII offers interesting insight on the influence that elite groups might have had on the selection, management and consumption of livestock (Bartosiewicz 2010, 122-3; Frangipane 1998, 201); the implications of this for the economic organisation of the settlement will be considered in greater detail in Chapter 7.

Although faunal remains suggest that it provided a minimal amount of meat, hunting was practiced by some members of the population at Arslantepe during Period VII. The wild species found at the site included aurochs, wild sheep, wild goat, gazelle, red deer, fallow deer, roe deer, wild ass and wild swine. Remains of carnivores included lion, brown bear, wolf, red fox, mustelid, weasel and wild cat and suggest that hunting wild animals may have had a symbolic role in relation to status and identity as opposed to a mere role in subsistence. Other small game included hare, bats, rodents; various birds among which great bustard, pelican, eagle and passeriform were found, as well as turtles, frog and fish remains (Bököny 1983, 582; Bartosiewicz 2010, 127-8 and 145-6). Although wild animal remains were found in both domestic and non-domestic areas (Bartosiewicz 2010, 127) it is suggested that *“The remains of wild animals recovered from Temple C [aurochs, wild sheep, red deer, brown bear and fish] are indicators of the roles wild animals played in ceremonial activities” (ibid 128).*

The habits and needs of the animals listed above offer important information about the plant coverage and more general environmental aspects around the settlement of Arslantepe. Looking at the specific environments required by the various animals, both domestic and wild, found at the site, one can determine that the inhabitants of Arslantepe were able to exploit a remarkably varied environment (Bököny 1983). This was characterised by riverside gallery forests as well as marshy spots useful for keeping pigs but also an ideal environment for wild swine; rich meadows and fertile valleys, very well suited for cows; forest-steppe, an environment favoured by aurochs, gazelles, onagers, fallow deer and wild sheep; lower, treeless belts of mountains, ideal for grazing domestic sheep; and, finally, dense forests and high mountain forests which provided the perfect environment for red deer and wild goats (Bököny 1983, 584).

Although for the time being there has been no information published on archaeobotanical remains, the environmental data summarised above seems to suggest that the plain of Malatya was a highly suitable location for the needs of a

settled community. It provided abundant natural resources suitable for agriculture, animal husbandry and a varied wild life, which was exploited by hunters.

If compared with other northern Mesopotamian settlements such as Tell Brak and Tell Hamoukar surrounded by the vast spaces of Khabour basin, it is immediately evident that only a fraction of these sites' agricultural land was available for the inhabitants of Arslantepe. These differences must have affected the economic organisation of these settlements in terms of their subsistence strategies. The relatively limited size of the Malatya plain probably did not offer the same agricultural yield as the Jazira; let alone the Mesopotamian Alluvium itself, as Frangipane writes *"The fertile and well-watered lands in the Malatya plain were limited by the surrounding mountains which prevented production from expanding above a certain level"* (Frangipane 1998, 201). Nonetheless, the higher yearly rainfall rate would have granted the inhabitants of the site with sufficient yields and, at the same time, the vicinity of hills, mountains and rich water courses provided a naturally varied environment with a vast range of exploitable resources. All of this could account for the relative stability and longevity of the settlement of Arslantepe during the Chalcolithic period. However, the characteristics of the available resources and related subsistence choices must also be considered when discussing the fact that Arslantepe never expanded in size into an urban settlement like many of those in northern Mesopotamia (this aspect will be further discussed in Chapter 7).

2.5 Arslantepe VII: the site and the history of the research

In this section I briefly describe the archaeological sequence at the site of Arslantepe; summarise the history of the archaeological works carried out at there from the first explorations until the most recent excavation campaigns carried out by the Italian team from Rome University 'La Sapienza'; and finally I provide an introductory overview of the archaeological contexts that are used in the present work as part of the dataset.

2.5.1 The archaeological sequence

The mound of Arslantepe (Figure 2.4), which covers circa 4 hectares, was gradually built up through the superimposition of several layers of human occupation; during the millennia successive structures at Arslantepe were constructed on the rubble of previous occupations; these were not cleared from the site but presumably levelled, compacted and used as a base for the new constructions. As a result of this building practice, by the end of the human occupation of the site, it had reached the height of about 30 meters above the plain of Malatya.



Figure 2.4 - The mound of Arslantepe from the north east (from the archives of Missione Archeologica Italiana in Anatolia Orientale - Rome University 'La Sapienza'- 1988)

This phenomenon, quite common in the Near East, is more evident when there have been long occupational sequences or in sites with large buildings with thick walls and imposing foundations. The settlement was occupied, virtually without interruption, at least from the end 5th millennium BC until the Neo-Hittite phases and the most recent occupation so far detected is dated to the late Roman/Byzantine phase.

The archaeological sequence of Arslantepe is summarised in the below (Table 2.1). The use of Roman numerals for labelling archaeological horizons at Arslantepe was introduced by Puglisi (Puglisi and Meriggi 1964; Palmieri 1968, 9); they are numbered progressively from the latest archaeological horizon to the earliest; capital letters are used to distinguish internal division within the horizon and mark significant differences in the material culture. The absolute chronology is based on a wide range of radiocarbon dates obtained from relevant contexts at the site of Arslantepe (Alessio 1976; Calderoli et al. 1994; Di Nocera 2000); specific details on Period VII internal chronological sequence are discussed in Chapter 6.

Chronological Sequence	Arslantepe Period	Absolute chronology	Contemporaneous phases in the Near East
Late Roman	I		
Iron Age	II-III	1100-700 BC	Hittite New Kingdom
Late Bronze II	IV	1600-1100 BC	Middle Hittite Kingdom
Late Bronze I	V B	1750-1600 BC	Old Hittite Kingdom
Middle Bronze	V A	2000-1750 BC	Old-Assyrian Colonies
Early Bronze Age III	VI D	2500-2000 BC	Early-Dynastic III b
Early Bronze Age II	VI C	2750-2500 BC	Early-Dynastic II-III a
Early Bronze Age I	VI B2	2900-2750 BC	Jamdet Nasr
Early Bronze Age I	VI B1	3000-2900 BC	Jamdet Nasr
Late Chalcolithic 5	VI A	3350-3000 BC	Late Uruk
Late Chalcolithic 3-4	VII	3800-3350 BC	Early and Middle Uruk
Late Chalcolithic 1-2	VIII	4250-3800 BC	Transitional phase between late Ubaid and Early Uruk

Table 2.1 - Arslantepe archaeological sequence and chronology (adapted from Frangipane (ed.) 2004, pp. 18)

Such a long and uninterrupted sequence, during the prehistoric and proto-historic phases, combined with an extensive excavation strategy, not only allows the study of diachronic patterns of occupation (see for example the re-utilisation of the central-western part of the mound for the construction of monumental

buildings with public functions during the Chalcolithic period) as well as the development of different characteristics of the settlement across the millennia but it has also offered the rare opportunity to observe those ephemeral transitional phases between the different cultural horizons (Frangipane 2002; D’Anna and Guarino 2010; D’Anna and Piccione 2010) that are usually hard to perceive and tend to disappear under the inevitably clear-cut distinctions made by archaeologists between different phases. As shown in the following sub-section Arslantepe’s sequence was reconstructed over several decades of thorough prolonged fieldwork activities at the site.

2.5.2 The chronology of Period VII

The chronological attributions presented in Table 2.1 are based on a series of radiocarbon dates obtained from samples collected during the excavation of the various archaeological deposits and contexts at Arslantepe. Period VII chronology was defined by 6 radiocarbon dates as shown in Table 2.2.

Sample n.	Context	¹⁴ C dates, b.p.	Standard deviation +/-	Calibrated ¹⁴ C dates BC, 1σ	Calibrated ¹⁴ C dates BC, 2σ	Reference
Rome 165	A582	4930	80	3788-3644	3943-3535	Calderoni et al. 1994
Rome 164	A580	4840	80	3699-3531	3783-3378	Calderoni et al. 1994
Rome 166	A617	4840	80	3699-3531	3783-3378	Calderoni et al. 1994
Rome 931α	A11	4860	50	3696-3633	3757-3530	Alessio et al. 1976
Rome 932α	A21	4790	60	3545-3389	3696-3376	Alessio et al. 1976
Rome 933α	A21	4730	50	3626-3378	3640-3365	Alessio et al. 1976

Table 2.2 - Radiocarbon dates from Arslantepe VII (adapted after Di Nocera 2000 – Table 1)

Unfortunately the 6 radiocarbon dates were all obtained from the middle part of Period VII stratigraphic sequence (details on the contexts and the chronological phases are discussed in Chapter 6) therefore its chronological range (3800-3350 BC) has been deduced using the radiocarbon dates from the preceding Period VIII and the subsequent Period VIA. The 8 radiocarbon dates obtained from Period VIII contexts range from 4300 to 4000 BC (Balossi Restelli 2008); while the dates from

Arslantepe VIA contexts suggest that the period started around 2300 BC (Di Nocera 2000).

The chronological definition of Period VII is also indirectly supported by the typological comparison of ceramic assemblages of Arslantepe Periods VIII, VII and VIA. Although the chrono-typological comparisons for Arslantepe VII are not quite as precise as would be ideal (Palmieri 1985; Frangipane 1993; Trufelli 1997; see also Chapter 5 for further discussion); the assemblages from Periods VIII and VIA present some characteristics that allow a clearer chronological definition of these phases. I refer for example to strong similarities between Arslantepe VIII and Tepe Gawra IX-X or the presence of typically late Uruk shapes among Arslantepe VIA ceramics (Trufelli 1997; Balossi Restelli 2008; Frangipane 1983).

The combination of stratigraphic data and radiocarbon chronology is then at the base of the defining Period VII as spanning from roughly 3800 to 3350 BC. Hence in the wider context of Greater Mesopotamia Arslantepe VII coincides with the Late Chalcolithic 3 and 4 as defined by Rothman (2001) which makes Arslantepe VII roughly contemporaneous of Tepe Gawra VIII, Hacinebi A and B, Tell Brak TW 13 to 17 and the Early and Late Middle Uruk of southern Mesopotamia (Table 2.3).

Date B.C.		South		Iran		Syria				Upper Euphrates		Tigris	
3000	LC 5	IVA Eanna IVB V	▲	Nippur XV–XVII	Godin V	Early 17 Susa <u>Acropole</u>	Habuba Kabira Jebel Aruda	Sheikh Hassan 4	Brak TW 12	Hassek Höyük	Arslantepe VIA	Mohammad Arab	Nineveh (Gut)
	Late	Eanna VI					↓					Late Uruk	Späturuk Ninevite 4
3400	LC 4	Eanna VII	Abu Salabikh <i>Uruk Mound</i>	Nippur XVIII hiatus?		Late 18 Susa Early 18 Sbarafabad	▲	Sheikh Hassan 5–7	Brak TW 13	Hacinebi B2 ▲ Hacinebi B1	Arslantepe VII		L: 31–20 Norduruk B L: 37–31
3600	LC 3	▲ Eanna IX–VIII		Nippur XX–XIX		Susa 19–22	Qraya		Brak TW			▲	Norduruk A
			▼				▼	Sheikh Hassan 8–10/13	14–17	Leilan V		Tepe Gawra VIII	L: 45–37
3800	Late	Eanna XI–X						Hamman et Turkman VB		Hacinebi A		Tepe Gawra IX–X	Gawra B
	LC 2	↓ Eanna XII			▲ Geoy Tepe M	hiatus?			Brak TW 18–19	hiatus?		Tepe Gawra XI/XA	L: 59–45 Gawra A
4000	Early												
4200	LC 1	Eanna XVI–XIV				Susa Acropolis 23–27	Hamman et Turkman VA			▼	Arslantepe VIII	Tepe Gawra XII	hiatus? L: 60
	Term. Ubaid						Hamman et Turkman IVD		Leilan late VIb		▼		XIIA– XIII

Table 2.3 - 4th millennium chronology in Mesopotamia (after Rothman 2001 – Table 1.1)

2.5.3 History of archaeological intervention at Arslantepe

Arslantepe first became known to Near Eastern archaeologists after the discovery of a Neo-Hittite gateway decorated with stone reliefs as well as the two large statues of lions from which the site's name originates (*Arslan* – Lion, *Tepe* – Hill: Hill of the Lion). At the beginning of the 20th century the site was visited by both Gertrude Bell and Hansen van der Osten during their exploratory travels across eastern Anatolia (for a more detailed account on these first visits to the site see Ricci 2006). The first archaeological excavation at the site was carried out by French archaeologist Delaporte between 1933 and 1940, this was concentrated on the exploration of the Neo-Hittite layers on the north-western slopes of the mound and uncovered the famous Neo-Hittite 'Lion's Gate' (Delaporte 1940). Interrupted during the war the French activities were resumed by Claude Schaeffer between 1947 and 1952; pursuing his aim of reconstructing the whole sequence of Arslantepe archaeological deposit, and in accordance with the methodological trends of the time, Schaeffer carried out a series of deep trenches across the mound. Unfortunately the results of his work were never fully published (Schaeffer 1948). In 1961, the excavation and management of the site was undertaken by an

Italian expedition from Rome University 'La Sapienza', initially directed by Prof. P. Meriggi and S. Puglisi, then Prof. A. Palmieri and currently by Prof. M. Frangipane. The Italian works at the site of Arslantepe have been sponsored over the years by the University of Rome 'La Sapienza' and by the Italian Foreign Ministry. In line with his interest in the sequence of the Hittite occupation at Arslantepe Meriggi focused the first efforts in the northern half of the mound in order to extend the area where Delaporte had found the 'Lion's Gate'. Excavation in this area unearthed a sequence of Hittite town gates and fortifications (Puglisi, Meriggi 1964; Pecorella 1975). In the easternmost section of the excavated area the scanty remains of a rural village were found and were attributed to the late Roman period, representing the most recent occupation phase found at Arslantepe (Equini Schneider 1970). On the north-eastern slope of the mound, to the east of the Hittite gates, the excavation in sector C3 yielded a long sequence of prehistoric remains, mainly consisting of domestic contexts relating to the Chalcolithic occupation of the site (Palmieri 1969; 1978). In 1975, under the direction of Puglisi and Palmieri, another large trench was opened on the south-western edge of the mound. Excavations in this area led to the discovery of a sequence of several over-imposed villages attributed to the Early and Middle Bronze Age (Periods VI B, C, D and V A of Arslantepe chronology), dated between 3000 and 1750 BC (Frangipane and Palmieri 1983; Conti and Persiani 1993; Di Nocera 2004; Frangipane et al. 2005). Among the many and well preserved Early Bronze Age domestic contexts, the discovery, in 1996, of the so called 'royal tomb' (Frangipane 1998b) stands out, as does the fortified citadel wall of Period VI B2 (Frangipane 2001b). The 'royal tomb' consisted of a rectangular stone slab-lined cist cut at the base of a larger sub-circular pit. The bodies of four young individuals had been laid in the larger pit around the stone slabs that covered the cist. This, in turn, contained the body of an adult man surrounded by an exceptional wealth of grave goods including several ceramic vessels, metal weapons as well as golden, silver alloy and copper ornaments such as diadems, air pins, bracelets, etc. (Frangipane et al. 2001b) This context, dated to the early centuries of the 3rd millennium BC, opened new perspectives in the interpretation of the relationships between settled and nomadic groups in the Malatya plain (Palumbi 2004; 2009). Of comparable

importance in understanding the dynamics of different groups populating the plain was the discovery of a Period VI B2 citadel wall; an imposing 6 meter thick mud brick structure on a hefty stone foundation, it seems to be enclosing the highest part of the mound and small domestic buildings are directly abutted to its external face (Frangipane 2001b; 2004) and was interpreted as a fortification wall. The foundations of this Early Bronze Age wall were built directly above the levelled ruins of a late 4th millennium BC (Period VIA in the Arslantepe chronology) complex that has been interpreted as a temple/palace. The latter structure was burnt down by a fire and a large quantity of artefacts was abandoned *in situ* providing a great wealth of information about the activities carried out within (Palmieri 1973; Frangipane and Palmieri 1983; Frangipane 1997). The temple/palace complex produced abundant evidence for a complex centralised administration of the economy at Arslantepe by the end of the 4th millennium BC (Frangipane and Palmieri 1983; 1988; Frangipane 1992; 1997; 1998a; 2000; 2002). Due to its exceptional characteristics, the discovery of this architectural complex put Arslantepe in the spotlight of Near-Eastern archaeologists as a key site for the interpretation of the dynamics of interaction between southern Mesopotamian communities and the eastern Anatolian territories during the Late Uruk period.

The western part of the mound, where the Period VI A temple/palace complex was found, already had an important role in the public life of the community of Arslantepe during the preceding Period VII (LC3-4), as was shown by the discovery between 1989 and 2000 of several imposing buildings attributed to Period VII (Late Chalcolithic 3-4). First to be found was a large building with thick walls and columns (Frangipane 1993) and then, just to the north of the Period VI temple/palace complex, the remains of a monumental tripartite ceremonial building (Figure 2.5) were also found, and scattered on its floor were hundreds of bowls which have been interpreted as evidence for ceremonial redistribution of food rations (Frangipane 1993; 2001a; D'Anna and Guarino 2004; 2010; Guarino 2008). These Period VII remains will be discussed in more detail in the following section and in Chapter 6.



Figure 2.5 - A view of Period VII tripartite building from the south (the archives of Missione Archeologica Italiana in Anatolia Orientale – Rome University ‘La Sapienza’ – 2000)

Finally, in the early 1990s another trench was opened on the north-western slope of the mound, just north of the Period VII buildings. In this area, archaeologists unearthed a series of small structures, attributed to Arslantepe Period VIII (Late Chalcolithic 2) dated to the end of the 5th millennium BC, which included domestic structures and cooking areas with large ovens (Balossi Restelli 2008, 2010). Excavations in this trench were resumed after a short interruption in 2003 and provided the evidence for the transition from Period VIII to Period VII as shown by the presence of ceramic types which seem to be transitional between the two phases.

2.6 Periods VIII, VII and VI A: basis for a diachronic comparison

In the following chapters the evidence from Arslantepe VII is often compared to that of the periods that preceded and followed it, respectively Periods VIII and VI A. This is necessary to provide a frame of reference for the analysis of the

development of Arslantepe VII's social complexity. In the next two subsections I provide some background information on the characteristics of these two archaeological horizons.

Affected by the degree of preservation as well as strategies of excavation, the archaeological data from Periods VIII and VI A is inevitably different in nature and volume from that available for Period VII and therefore it is not always immediately comparable. However, despite these differences, this data still provides some crucial insight in the nature of the changes occurred during Period VII.

2.6.1 Period VIII

The excavation which uncovered Period VIII remains revealed two main building phases. In both phases the structures excavated were mainly domestic in character and particularly in the earlier phase a functional characterisation of space can be argued due to the presence of ovens, cooking ranges and in some cases large concentrations of charred grains in the corner of the rooms (Balossi Restelli 2008, 23). These buildings were relatively similar in size and layout to some of Period VII's domestic structures found in the north-eastern slope of the mound (see Chapter 6 for details of phases VII d and VII g). In both Periods VII and VIII at Arslantepe (as well as in nearby site of Norşuntepe) the walls were plastered and decorated with painted patterns. Although Period VIII remains were uncovered in the proximity of some Period VII monumental structures (Balossi Restelli 2008; 2011 in press) so far no evidence of monumental architecture or buildings with public functions has been found in Period VIII deposits (Balossi Restelli in press).

The ceramic materials from Period VIII are all handmade; the most common shapes include simple hemispherical bowls, globular cooking pots and globular jars with out-flaring neck/rim. An initial comparison of Period VII and VIII assemblages (Balossi Restelli in press, 9) shows clear similarities in the shapes and functionality of the cooking pots and the jars but the distinction between the two assemblages is marked by different manufacturing techniques and the surface finishing implemented in the two periods (see details in Chapter 5). The first appearance of roughly produced bowls, which could be considered as direct predecessors of

Period VII mass-produced bowls, is attested in Period VIII (Balossi Restelli in press, 9).

2.6.2 Period VIA

Unlike Period VIII the remains from Period VI A do not seem to include common domestic areas; this period is fairly well known among Near Eastern archaeologists for the discovery of an imposing palatial complex (the abovementioned palace/temple complex, see Frangipane 1997). This includes two ceremonial buildings (the so-called temples A and B) a series of storage rooms and a long corridor that crosses the whole structure (Figure 2.6). The thick mud brick walls of the buildings are lined with several layers of white plaster which are decorated with painted images, depicting processions with bulls and carts (along the corridor) and human figures (in the storage areas), or with impressed rhomboid patterns (Frangipane 1997, 64-65). As mentioned above, this palace was destroyed by a fire and was found by the archaeologists with hundreds of ceramic vessels and other artefacts scattered on the floors of the various rooms. Among the many impressive finds were large concentrations of clay sealings collected in the storage areas or discarded in nearby, the innovative study of these artefacts during the past decades, the analysis of their distribution and function made a major impact on our understanding of the practice of administrative techniques (Fiandra and Ferioli 1983; 1993; Frangipane (ed.) 2007). Another remarkable find from the palace included a pit with several metal weapons (swords and spearheads) which provided the first known evidence to date of the use of the sword and of the advanced metallurgy skills required to produce and decorate the arsenical copper alloy from which the swords were made (Caneva et al. 1985; Frangipane 2004; Frangipane and Palmieri 1983; Palmieri et al. 1999). Animal bone remains from the Period VIA palace provided crucial information on a centralised system of management and consumption of livestock mainly focused on sheep herding (Bartosiewicz 2002; 2010). And, finally, the ceramic vessels from the various rooms of the palace contribute to the reconstruction of a complex system of spaces where centralised storage of staple, redistribution and ceremonial consumption of meals were all practiced within a strictly controlled environment (as indicated by the presence of

abovementioned administrative tools). This evidence indicates the existence of a well-established power structure based on a centralised management of the economy that may have maintained classes of rulers, functionaries and craft specialists (Frangipane 1993; 1997; 2002; 2010).

The pottery assemblage from Arslantepe VIA includes a large variety of wares and shapes as well as several manufacture and finishing techniques (for the overall presentation of the assemblage see Frangipane and Palmieri 1983; for new developments of the research on the assemblage see D'Anna 2010, see these reference for the rest of the section unless otherwise indicated). Cooking pots were always handmade and roughly finished; storage jars with straight necks were often produced with mixed techniques including the use of a wheel for shaping some parts of the pots (mainly the necks), their surfaces were treated with reserved slip technique; the large amounts of mass-produced bowls were all produced on a wheel. Among Period VIA ceramics were also found some object of southern Mesopotamian style or proveniences which confirm the contacts between the 'Uruk world' and Arslantepe at the end of the 4th millennium BC. And it is also during Period VIA that the 'red and black' pottery (of Central Anatolian or Transcaucasian tradition) is fully included in the assemblage possibly suggesting that new pastoral components were somehow integrated in Arslantepe society (for details and ample discussion of 'red and black' pottery see Palumbi 2009). As for the relationships of continuity between Period VII and Period VIA it will be sufficient (for the time being) to say that the changes and innovations detected in the latter phase were introduced on a solid tradition of pottery production that can be traced back at least to the last phases of Period VII (more details and discussion are presented in the following chapters).

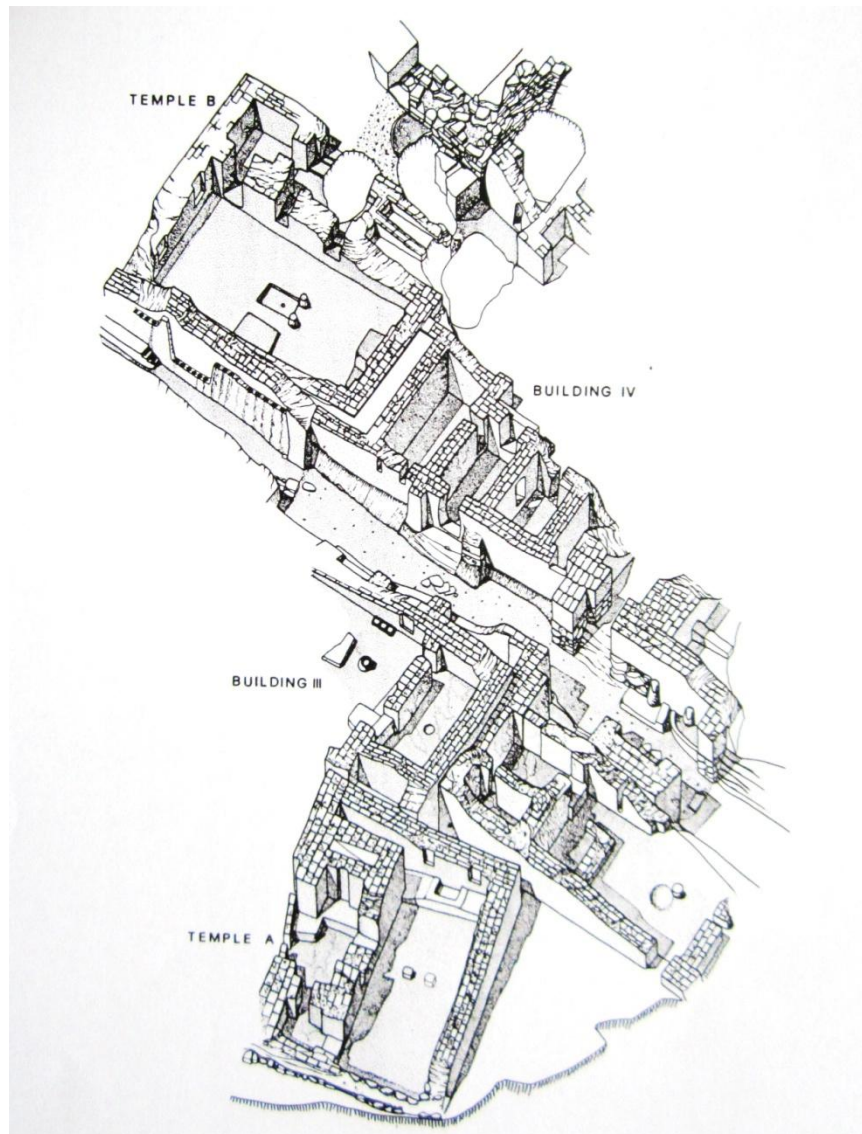


Figure 2.6 – Arslantepe VIA palace (after Frangipane 1997 – Fig. 2b)

2.6.3 Period VII - a case study for the analysis of social complexity

In the case of Arslantepe VII the archaeological remains provided evidence for common and elite dwellings as well as monumental public and ceremonial structures.

The remains attributed to Arslantepe Period VII date from about 3800 to 3350 BC. During this phase the site reached its maximum expansion, as is attested to by the evidence that, both in the north-eastern and south-western edges of the

mound, Period VII deposits cut into the natural soil. The first strata to be attributed to this horizon were found in the late 1960s and early 1970s on the north-eastern edge of the site, where at least 10 consecutive phases were excavated (Palmieri 1968; 1979). From at least two of these phases some extensive building remains have been uncovered; their characteristics suggest that these structures were domestic contexts (Palmieri 1979, Trufelli 1994).

As briefly mentioned above, from 1989 to the present, excavation on the western edge of the mound has unearthed several other contexts attributed to four consecutive phases of Period VII. The earliest of these contexts, contemporaneous to the structures excavated on the north-eastern sector, consisted of a complex of large buildings characterised by thick walls, rooms with internal columns and wall paintings. The main rooms of this complex yielded a quantity of *in situ* pottery including a large number of storage jars (Frangipane 1993). The subsequent building phase was characterised by three complexes of two or three rectangular rooms of domestic character, with small circular hearths in the middle, mud-built basins and cooking ranges. Abundant *in situ* materials were also recovered from these contexts. To the south of these domestic complexes and stratigraphically above them, was the large monumental building (almost 20 meters long and more than 10 meters wide) which contained thousands of mass-produced bowls and clay sealings (Frangipane 2001a, Guarino 2008, Mezzasalma 2008). Although partially disturbed by later intrusions, the overall plan outline and dimensions of this structure was clearly discernible. Abutted against the north wall of this building, two small structures and an open area were also found. These provided the stratigraphical connection between building XXIX and another large complex of buildings that included five, long rectangular rooms. Possibly contemporaneous to this structures are an open area paved with a layer of potsherds and two small sub-circular structures, A564 and A571, with mud-brick walls, a fireplace and *in-situ* materials (Frangipane 1993).

The range of the excavated buildings and associated artefacts of Period VII are the focus of the current, more detailed, study of the different purposes and

functions of these structures as possible guide to understand the social organisation of the community that built and used them. Rather than assuming that architectural monumentality can be considered an indicator *per se* of the presence of hierarchies and therefore social diversity, this study uses a comparison between the functional characteristics of different buildings to address the nature of the social practices and dynamics behind their construction. Many of these buildings were found with abundant *in-situ* materials which have, in turn, led the idea of studying the differential distribution of the ceramic containers in order to assess the functional interpretation of the various buildings.

The Arslantepe VII ceramic assemblage has specific attributes some of which have inspired my decision to study the manufacture techniques and production organisation as well as the distribution of these ceramics. The assemblage is characterised by a distinction between handmade and wheel thrown/finished vessels. The full functional range of pottery forms was made using both the handmade and the wheel finished techniques which co-exist and are often found in the same contexts. This feature motivated me to focus my analysis of the ceramics on the organisation of the production processes and the social organisation within which they are enacted. The presence of two clearly distinguished production classes, the abundance of 'mass-produced' bowls and the use of potters' marks and potters' wheels allowed me to address the issues of specialised production and its implications for understanding the social organisation of the community analysing and the development of early complex societies' in 4th millennium BC in Mesopotamia. The definition of the nature of social complexity at Arslantepe can in turn provide a good basis for a wider comparison with other contemporaneous sites in Greater Mesopotamia.

3. Theoretical Framework: approaches and themes for the interpretation of early complex societies

3.1 Introduction

In the first two chapters I provide a general introduction to the site of Arslantepe and state my aim of investigating the material remains from Period VII in order to assess social organisation at the site. In this Chapter I will discuss the theoretical approach used in my aims. I start with a consideration of the academic debate that provides the intellectual framework to the present research and then a series of themes and models that I have used to analyse social complexity in Arslantepe during Period VII.

1. *Complex societies - the academic debate.* I look at the wider theoretical debate concerning with the formative processes of early complex societies, the degree to which interregional cultural and commercial relationships characterize that complexity, and attempts to define and classify complex societies.

2. *Late Chalcolithic Mesopotamia.* In order to contextualise this debate within the regional frame of the present research I focus on how theories on the origins and the relationships between early complex polities have influenced the work of Mesopotamian archaeologists and vice versa. Divergent opinions on the emergence and diffusion of social complexity in Mesopotamia during the 4th Millennium BC are discussed with reference to some of the scholars that have studied the problem from different perspectives and the different conclusions they have reached.

3. *Materialisation of ideologies and Feasting.* Narrowing the focus I then concentrate on the way these complex societies functioned, with a particular regard to Earle's theory of power and theories of materialisation of ideologies and feasting which provided me with useful models for the interpretation of Arslantepe VII remains which displayed evidence for architectural monumentality and practices of redistribution.

4. *Standardization of products, craft specialization and consumption.* Confident that the study of ceramic assemblages can aid our understanding of social organisation, I look at those analytical models which have used pottery as a potential indicator of social complexity through the concepts of standardisation and craft specialisation. But I will also look at those works that study the distribution of the artefacts and their pattern of consumption in order to understand and interpret the function of the pottery and its social meaning.

3.2 The difficulties of defining early complex societies: a debate stretching from evolutionism to agency

In the first two chapters of this thesis some of the main characteristics of the archaeological evidence from Arslantepe VII were introduced. The expansion of the site, the presence of monumental buildings, and their association with evidence of administrative and redistributive activities has been interpreted as evidence of increased complexity within the social organisation of the settlement (Frangipane 1993, 2000, 2001a, 2002; Guarino 2008, D'Anna and Guarino 2010). Indeed, all of these traits have been typically associated, in the archaeological literature, with complex societies that were alternatively called chiefdoms or states depending on the degree of complexity or on the criteria used in defining them.

Attempting to define complexity and complex societies is tantamount to taking a walk in a mine field of disciplinary argument. The debate on these topics has developed across many decades and its focus and aims have changed according to the specific interests and orientation of the various authors. Social complexity includes both a question of scale (where a single society incorporates a number of units of similar functional type) and a significant degree of social hierarchy (where either class differentiation or layers of administrative organisation serve to integrate and co-ordinate the wider society). This definition of social complexity is discussed in more detail towards the end of this section. In the following pages I only discuss those approaches and theories that are relevant to this thesis and that have shaped the perception and the definition of complex societies and their characteristics. For a general and more detailed assessment of the debate on complexity, chiefdoms and states I refer to the comprehensive reviews by Chapman (2003; 2007); Bernbeck (2009) or Yoffee (2005) and also to the work by Stein (1998); Rothman (2004) and Matthews (2003) for the directions this debate has taken among Mesopotamian archaeologists.

In 'Urban Revolution' (Childe 1950) and 'Social Evolution' (*ibid* 1951) Childe showed how the archaeological record pointed to a degree of variability in the organisation of past societies that indirectly challenged the validity of the three main evolutionary stages of Savagery, Barbarism and Civilisation originally suggested by Morgan (1974 [1877]). Talking of the latest of the evolutionary stages Childe admits that looking at it from an archaeological perspective "*Civilization cannot be defined in quite such simple terms*" (Childe 1950, 3). The inherently increased social complexity detected in the stage of 'Civilisation' is by definition harder to pin down as there are several elements that concur in defining its characteristics. Childe suggested a set of criteria that could distinguish a city from any other, less complex, form of social organisation; among these criteria are the size of the settlements that tend to increase significantly; the centralisation of the economy; the emergence of social hierarchies, craft specialisation and labour exploitation; the presence of architectural monumentality, the creation of systems of record keeping and writing to deal with the accumulation of surplus and the circulation of exotic raw materials or more generically prestige goods. In Childe's reconstruction these elements are all strictly linked to the capacity of the ruling class to centralise and monopolise food surplus in exchange for military protection and spiritual leadership (Childe 1950, 13; 1951, 161).

During the 1960s neo-evolutionist theories inspired the work of anthropologists such as Service (1962), Sahlins (1972) and Fried (1967) who identified new forms of social organisation fitting them in patterns of social evolutionary development. Service and Fried distinguished four types of society, which represented four consecutive stages of evolution from the "*band*" of hunters and gatherers to "*state*" passing through agricultural "*tribes*" and "*chiefdoms*". Much the same as the three stages identified by Morgan, these social types were defined on the basis of sets of characteristics that generally accounted for the size of a community, the nature of the relationships between the members of the community (egalitarianism, forms of social inequality, hierarchies and nature of power relationships), the economic organisation of the community (e.g. the emergence of agriculture is regarded as a

fundamental factor in the transition from band to tribe; or control and monopolisation of access to economic resources as a characteristic of more complex societies such as chiefdoms and states).

The definition of these types of society had a strong influence especially on Anglo-American archaeologists who applied the new evolutionary theories to the interpretation of the archaeological record. From the works of archaeologists such as Flannery (1972) and Renfrew (1974) who introduced the use of these new social categories with the aim of making inferences on the social organisation of past communities it was clear that the definition of chiefdoms and states were inevitably fluid as they had to deal with several variables which interacted in different ways and times.

Chiefdoms were generally distinguished from the previous evolutionary stage, the tribe, by the presence of hereditary leadership, an increase in the volume of the population; the emergence of craft specialisation and the presence of a redistributive economy (for a synoptic view of these traits see for example Flannery 1972 Figure 1). Chiefdoms were then seen as societies in which the economic and ideological aspects of a community's life were centrally controlled by chiefs whose power and authority were somehow more durable and 'institutionalised' than in 'earlier' forms of organisations. Social inequality increased along with the strength of the hierarchical structure; the chiefs were then able to control larger territorial units; mobilise more economic resources and employ labourers for public works such as the construction of irrigation systems, public monuments, ceremonial buildings and so on (see among others Earle 1987, 10 and ff; Johnson and Earle 1987).

The parameters that these theories used to distinguish chiefdoms from states include an increase in the scale of the community, the extent to which access to resources is restricted by elites, the use of military strength to found and maintain power, an increased territorial control by rulers and increased control over

economic production, craft specialization and ideologies (see for instance Flannery 1972; Johnson and Earle 1987; Wright 1977; Blanton et al 1981).

During the 1970s Flannery (1972), Wright and Johnson (1975; and also Wright 1977 and Johnson 1982) shifted the attention of the debate to the degrees of 'decision making' and administrative control as crucial parameters to distinguish between chiefdoms and states. According to this approach, in order to manage progressively centralised organizations, a new system of decision-making developed, consisting of a hierarchy of administrative functionaries with different responsibilities. Bureaucracy and administration became essential tools for managing the many activities carried out by a central authority, and also on a wider regional scale, the specialisation of settlements demonstrated an increased distribution of decision making power.

These neo-evolutionist comparative theories and approaches on the study of early complex societies had the merit of promoting a wide range of new research that in turn determined the development of new methods and themes along with large amount of new archaeological data. But it was probably this very increase in the scale of research that eventually changed the original questions and approaches of the debate.

The debate on the nature of chiefdoms and states became extremely wide and complex as the criteria by which the two social types were defined changed and developed, following new theoretical approaches and trends. With many scholars looking for chiefdoms and state societies in different periods and different regions new characteristics were added to the original definitions of these types of societies (see Chapman 2003 Chapters 3 and 4 for an overview). It soon became clear that the variability within the original types was extremely high and pre-defined typologies of social organisation were unable to account for either the large amount of ethnographic and archaeological examples or for the new theoretical agenda (see among others Feinman and Neitzel 1984; McGuire 1983). In a comprehensive paper

on Chiefdoms Earle (1987) noted how the traditional typologies were being substituted by new research interests:

“Now many scholars assert that such typologies obscure both the variation within the types and the evolutionary changes between them; instead of classification we are exhorted to study process by investigating the relationships between variables.... Attempts to classify societies into the evolutionary types based on the diagnostic traits of the 1960s, sometimes called “check-list archaeology” (Kristiansen 1984), is seen as unproductive.” (Earle 1987, 280)

More recently, in a volume that stresses the importance of comparative approaches in archaeology, Smith and the other contributors stated that *“a central problem with neo-evolutionism was its focus on normative societal types ... that tended to compress or ignore variation and concentrated on generalised similarities”* (Smith et al. 2012, 2).

As also recently argued by Bernbeck (2008) the anthropological comparative approach to the identification and interpretation of chiefdoms and states was too rigid to reflect the variability provided by the evidence. It implied a generalisation based on prototypes of social structure with the inevitable risk of a circular reasoning *“In which the identification of predefined attributes for states serves as a classificatory foundation for the search of what characterizes states”* (Bernbeck 2008, 537).

During the 1980s and 1990s social categories such as chiefdoms and states were used more as heuristic tools rather than fixed societal types. The original neo-evolutionist comparative approach was slowly abandoned and, in order to address the high variability observed from the records, new interpretive models were introduced in the debate. These models shifted the focus of the debate from the controversial issue of definitions of social types towards the organisational dynamics of societies. Within this trend some archaeologists addressed the problem of defining and understanding chiefdoms using parameters such as the political

economy that structured them (Brumfiel and Earle 1987; D’Altroy and Earle 1985); the nature and origins of political power, in other terms, the strategies applied by chiefs to establish and maintain it (Earle 1987; 1997). An interesting contribution was offered by Stein and Rothman (Stein and Rothman 1994) who argued *“that criticism of traditional typologies can best be addressed by using analytical terms such as ‘chiefdom’ or ‘state’” as flexible ranges of organisational variation rather than as tightly defined structural types*” (Stein and Rothman 1994: 4). More recently the influence of theorists such as Bourdieu (1977) and Giddens (1979) mainly among British and North-American archaeologists introduced the concepts of ‘agency and social practice’ in the debate on chiefdoms and states. As noted by Dornan (2002, 304) there is no full unanimity in the specific meanings given by the archaeologists to these concepts (for comprehensive definitions and discussion on the application of these models in archaeology see among others Hodder 1982; Shanks and Tilley 1987; Chapman 2003; Dobres and Robb 2000; Dornan 2002; Gardner 2004; Bernbeck 2009). These new theories moved the focus of the debate from relatively anonymous social organisations and institutions to the various actors, whether individuals or groups (factions) that with their daily practices structure, maintain and reproduce (or change) the societies they lived in; some authors concentrated on individual intentionality, others on collective agency, others on resistance to the status quo and social struggle. A significant feature of this multifaceted debate is the analysis of social action or social practices through the archaeological record as valuable tools to investigate social and political organisation of past societies (see also Section 3.4.2). This approach that derives from Giddens’ structuration theory (1979) and Bourdieu’s ‘Logic of practice’ (1990) is effectively used by Dietler when arguing that the study of feasts and ceremonies as social practices is the ‘only way’ to investigate ‘social stratification and political centralisation’ outside the box of evolutionist societal classification (Dietler 2001, 66); in section 3.4.2 we discuss the relevance of these approaches to our analysis of Arslantepe evidence of practices of ceremonial redistribution of resources.

3.2.1 Arslantepe VII in between types

To allocate the society of Arslantepe VII into only one of the societal types of ‘chiefdom’ or ‘state’ would be controversial and restrictive. The archaeological evidence from Arslantepe shows traits that are generally associated with early state formation, particularly in terms of decision making hierarchies and administrative technologies but the relatively limited size of the mound and the lack of evidence for a hierarchical system of settlements in the plain of Malatya seem to suggest that there was not such a thing as a structured state yet. Hence, acknowledging the critics of the neo-evolutionist societal types I prefer to use the term ‘complex society’ instead of ‘chiefdom, archaic state or early state’. This decision was also taken in order to avoid rigid classifications of human social organisations and thus in respect of a much needed ‘flexibility in approach’ suggested by Roger Matthews (2003, 94).

For a definition of the word ‘complexity’ I refer to Stein and Rothman: *“Complexity, then, is the degree of functional differentiation among societal units or sub-systems (Flannery 1972, 409; Blanton et al. 1993, 17; Paynter 1989, 369; Kowaleswsky 1990). Complexity has a horizontal axis consisting of the number of units of similar functional type and a vertical axis consisting of the number of hierarchical levels. These axes can be described in another way as the degree of integration or centralisation. By integration we mean the degree of interdependence among the functional units. Flannery describes this same idea as the “degree of linkage among those sub-systems in the functioning of the system” (Stein and Rothman 1994, 4).* In the following chapters of this thesis the term ‘integration’ is used to indicate the extent to which the economic activities of different groups of the community complemented each other. I am interested in defining the nature of the social complexity as experienced at Arslantepe more than determining whether it was a chiefdom or a state; for this reason I regard this definition of complexity as the most appropriate for my approach. It invites the analysis of the dynamics by which societies are organised without asserting predefined parameters or attributes.

A crucial point that needs to be stressed here is that regardless of the terminology or the parameters used to define complexity, it remains a relative concept and as such requires comparison with some fixed point to be informative. As stated by Smith and Peregrine (2012, 4): *'comparative analysis is the only way to identify regularities in human behaviour, and [...] unique features of human societies'*. For this reason and in order to determine the relevance of the changes occurring in Arslantepe during Period VII the methodology of this research includes consistent diachronic comparisons of Arslantepe VII data with Periods VIII and VI A. As noted by Stein *"our diachronic analyses need to focus on the conditions under which power relationships in chiefdoms and states undergo major structural transformations"* (Stein 1998, 26). A comparative approach will also be used in the final chapter of this work where Arslantepe VII is compared with other Mesopotamian sites.

In the following section I discuss how the debate on complex societies evolved among Mesopotamian archaeologists. And, principally, I present some of the topics and issues that are specific to the region and that provide the necessary background for the study of the evidence from Arslantepe VII.

3.3 Social and Political complexity in 4th millennium BC Mesopotamia

The present section summarises those themes discussed by Mesopotamian archaeologists that are most relevant to my analysis of Arslantepe VII. It provides some background to the history of the discipline in this area, which has often focused on the ‘emergence of social complexity’; ‘state formation’ and the ‘north-south relationship dynamics within Greater Mesopotamia’; hence it is directly relevant to the central aims of my own research. At the end of this section I also offer a brief overview of the characteristics of the pottery assemblages that provide the basis for much of this debate, as whilst societies seem to become more ‘complex’ the pottery gets simpler and coarser.

As shown by Matthews (2003, Chapter 4) the wider debate on complex societies briefly discussed above was influenced by the exceptional wealth of archaeological evidence being brought to light in the Near East. And, at the same time, the many theories and approaches produced within that debate significantly affected the scholars specialised in Mesopotamian archaeology. Two comprehensive papers by Stein (1998) and Rothman (2004) discuss a vast array of contributions to the study of complex societies in the ‘Old World’ showing how intensely debated the issues related to social complexity have been among Near Eastern archaeologists. Evidence of this intense exchange of views can be found in the work by Wright (1977) and Johnson (1973) who, as mentioned above, shifted the attention towards the administrative technology and settlement distribution as evidence of hierarchy decision making. In the same way, the ‘political economy’ models (such as those suggested by D’Altroy and Earle 1985) had a considerable influence on the reconstruction of the functioning dynamics of some Mesopotamian polities (see e.g. Stein and Rothman 1994, Frangipane 1996). The impact of approaches that focused on bottom-up perspectives in the analysis of the development of complex socio-political organisation is clearly present in Pollock’s (1999) volume *Ancient Mesopotamia: the Eden that never was*.

Beyond the approaches applied by specific authors, the processes that lead to the formation of complex societies and archaic states, their organization, their interaction with neighbouring polities and eventually their collapse, represent one of the most stimulating and challenging subjects to archaeologists, and a key research area in the Ancient Near East (Feinman and Marcus 1998; Stein and Rothman 1994; Yoffee 2005).

3.3.1 Late Chalcolithic Mesopotamia: Uruk expansion or local origins – the academic debate

Most scholars acknowledge that the high degree of variability shown by Mesopotamian sites in the 4th millennium BC, in terms of association of different cultural traits and interregional relationships, suggests that Mesopotamian communities were probably composed of different social groups that carried out different activities and that were driven by different interests (i.e. herders, farmers, artisans, functionaries, labourers, slaves, nomads (see among others Adams 1981; Stein and Rothman 1994; the contributors in Rothman Ed. 2001). The interaction between the many social, political and economic components, which contributed to the formation of highly integrated forms of society, across an extensive period of time, accounts for the variability that archaeologists detect when analysing complex societies.

Ancient Mesopotamia, with its large settlements and evidence for long distance relationships, provides exceptional archaeological evidence to explore the development of early complex societies within a composite system of interregional relationships.

In Greater Mesopotamia during the 4th millennium BC, in what is a wide area, very complex communities with centralised economies, complex administrative systems, extensive territorial control, large settlements, craft specialisation, etc. emerged. The earliest archaeological evidence of these complex polities came from southern Mesopotamia with the discovery of the site of Uruk-Warka (Iraq) in the

late 1920s. The site was excavated from 1929 until 1939 and then again from 1954 until 1968 (Eichman 1989). The review of the excavations' results and the study of the materials carried out by Nissen along with a study of the territory around the site conducted by Adams (Adams 1981; Adams and Nissen 1972; Nissen 1970, 72, 1987, 1998) proved the emergence of a composite territorial system of interrelated settlements. The centrality and prominence of the site of Uruk itself became clear, especially when analysed in the context of a network of other urban centres surrounded by smaller rural settlements. Subsequent research carried out in the south of Iraq and the south-west of Iran, including an intensive territorial survey to identify the population dynamics of the area in the 4th millennium BC through an analysis of the regional distribution of the sites (Adams and Nissen 1972; Johnson 1973), confirmed that across all of the southern Mesopotamian alluvium a similar complex system of settlements, organised in a dimensional hierarchy, was in place by the end of the 4th millennium BC. At all of these alluvial settlements the same material culture, and possibly the same kind of social organisation already hypothesised for Uruk, was encountered. This evidence promoted an intensive focus on southern Mesopotamia by the majority of the archaeologists specialised in Mesopotamia and early state formation for many years.

An interesting shift of attention towards the northern and eastern outskirts of Mesopotamia occurred during the 1980s, following the discovery of sites such as Habuba Kabira South (Sürenagen 1974-75, 1986; Strommenger 1980), Jebel Aruda (Van Driel and Van Driel-Murray 1979; Van Driel and Van Driel-Murray 1983) and Sheikh Hassan (Boese 1986-87) which were found during the Tabqa Dam salvage excavation project along the Syrian stretch of the Euphrates (Figure 3.1). The evidence from these sites, particularly the architecture and the pottery assemblage, showed a stunning degree of similarity with that from Uruk Warka itself and its hinterland. However these sites were founded on virgin soil and were abandoned at the end of the Uruk period. Excavations at other northern Mesopotamian and

Eastern Anatolian sites suggested that towards the mid 4th millennium BC traits of Uruk material culture had spread across northern Mesopotamia. Suddenly it became apparent that the 'Uruk world' was much larger than originally thought and archaeologists turned their attention to interregional relationships at a wider scale than before. Evidence of a southern Mesopotamian influence was found in sites such as Tell Brak (Oates and Oates 1993; Oates et al. 2007) Hamoukar (Ur 2010) Hacinebi (Stein et al. 1996), Kurban Höyük (Algaze 1990), Hassek Höyük (Behem Blancke 1992); Tepecik (Esin 1979) and Arslantepe (Frangipane 1997). These sites (Figure 3.1), unlike the ones in the Tabqa Dam area, had existed before the onset of Uruk influence, showing an established sequence of local Chalcolithic occupation levels that frequently persisted after the demise of Uruk influence.

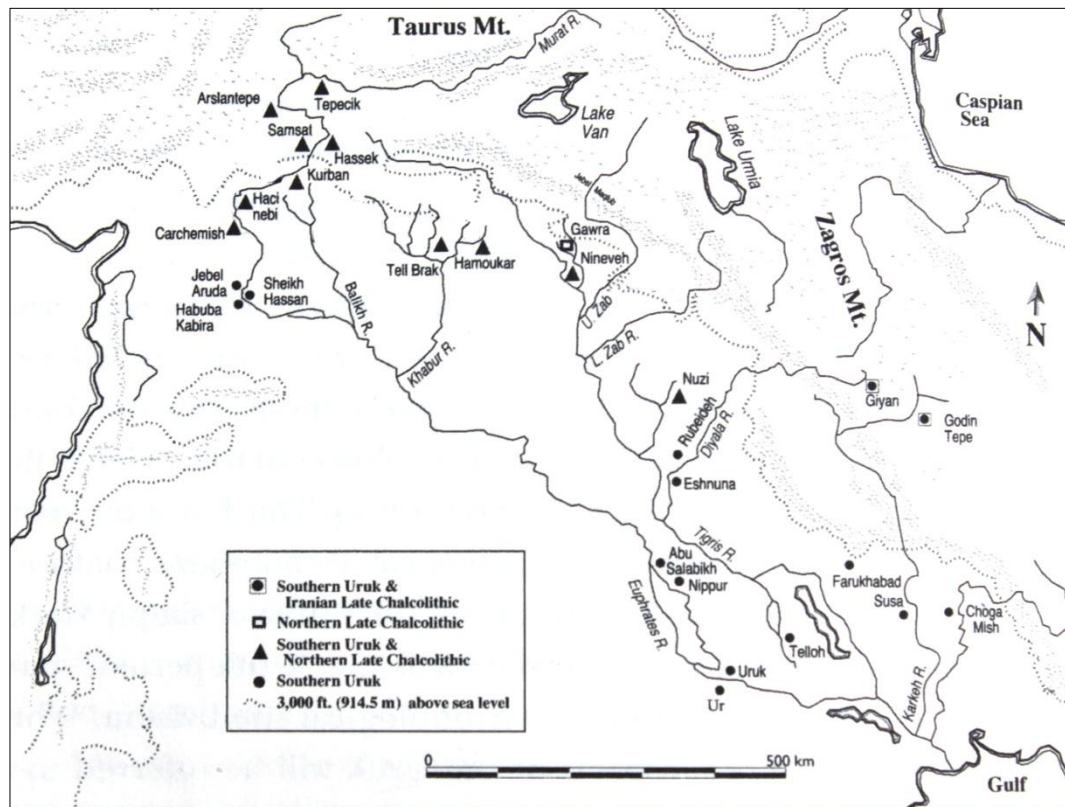


Figure 3.1 - Mesopotamian Chalcolithic sites (adapted after Rothman 2001 – Figure 1.1)

With these discoveries it became clear that a key challenge for archaeologists was to understand and explain the nature of the relationships between the north and the south of Mesopotamia. Sites like Habuba Kabira South, Tell Abada, Sheikh

Hassan (Boese 1987; 1995) in Syria and Hassek Hoyuk (Behem Blancke 1992) in Anatolia, were, almost unanimously, seen as outposts of southern communities placed *ad hoc* in strategic areas along major trading routes (on the reasons behind the foundation of the colonies see more below); but it was harder to interpret the nature of the relationships between the already existing local centres and the communities from the southern alluvium.

The economic and political relationships between different regions of Greater Mesopotamia and particularly between Upper and Lower Mesopotamia during the 4th millennium BC became the centre of a heated academic debate between two competing interpretations: one describes a system regulated by an inherent economic and cultural inequality and disparity in which the southern Mesopotamian polities were referred to as the centres of the development of complexity and the sites in northern Mesopotamia were regarded as being economically controlled and influenced by the more complex and highly organised communities from the southern Mesopotamian alluvium (Algaze 1993; Algaze 2001a); the other argued for models that recognize the possibility of an autonomous development of complex societies in the northern regions (Frangipane 1993; Frangipane 2001a; Stein 1999a).

Although a contribution to the debate on the relationships between northern and southern Mesopotamia (in the 4th millennium BC) is not the specific aim of the present doctoral research, this debate provides the essential background from which the research interests and questions that are developed in this thesis have been generated. In the following sub-sections I provide a brief summary of the main issues around which this debate has taken shape.

3.3.2 The “southern perspective”: theories in support of Uruk’s predominance

On the basis of the unrivalled dimension of the site of Uruk-Warka, about 250 hectares by the end of the 4th millennium BC, according to the results of a 1980s

survey (Finkbeiner 1991 but also Nissen 1988, 70), and the presence of at least two other large settlements reaching 150 hectares in the Uruk hinterland (Nissen 1988, 72), some scholars argued that it was in the southern alluvium that these kind of polities first appeared. Indeed, in the earliest attempt to reconstruct the reasons behind the 'Uruk expansion', Guillermo Algaze suggested that the growing economic needs of the southern polities determined an asymmetric relationship with the northern part of Mesopotamia. Within this framework of expanding economic and political influence from the complex southern polities over the neighbouring areas is also the assumption that socio-political complexity in the peripheries of the alluvium developed thanks to the interactions with the more complex southern polities which are then regarded as the centre of the system (Algaze 1989; Algaze 1993). Ample debate on the concepts of centre and periphery in the ancient world can be found in the volume edited by Rowlands, Larsen and Kristiansen (Rowlands, Larsen and Kristiansen 1987). Algaze's interpretation of Uruk expansion (Algaze 1993; Algaze 2001b) as characterised by a cross-cultural interdependency between the different areas of Greater Mesopotamia was based on the "World-System model" formulated by Wallerstein (1974) analysing the dynamics of modern European colonialism.

According to Algaze's reconstruction, the exceptional economic growth and the natural lack of some types of raw materials (e.g. timber, stone, metals) in the Mesopotamian alluvium prompted, for urban centres such as Uruk-Warka, the initial drive for a colonial-like expansion towards the northern peripheries of Greater Mesopotamia. The system established was based on the economic asymmetry between the two areas. The "*core*" region exported manufactured products (textiles, processed food, bitumen, etc.) receiving back from the northern peripheries raw materials such as building timber, metal etc. Control over trading routes was gained by the foundation of "*colonial*" outposts in economically strategic locations (natural fording points, etc.). It is supposed that this kind of system had a positive effect on the "*core economy*" because, the export of manufactured products involved an increase in production, mobilisation of

labourers, growth of the administrative system, whilst the import of unprocessed materials required the development of new sectors of craft production and a general expansion of the economy. The rulers of the northern settlements accepted the trade contacts with the “intruders” from the south, because of the obvious short term convenience of this trade without appreciating that, in the long term, this kind of exchange would have weakened their economy (over-specialisation in the production of few resources) (Algaze 2001b).

Only a few years ago, in a new and comprehensive contribution, Algaze (2008) took his original theories further, using new interpretive models drawn from the economic geography and analysing the economic premises behind the growth and development of large commercial centres. Algaze acknowledged the parallel development of proto-urban settlements in northern and southern Mesopotamia during the first half of the 4th millennium BC (Algaze 2008, Chapter 7), but, focusing on economic and environmental aspects that created the original advantage for the southern polities, he eventually stressed that during the second half of the same millennium the gap between north and south increases considerably taking the southern polities to a higher level of organisational complexity. Algaze’s aim is to explain the economic and cultural conditions of “*socioeconomic differentiation*” (Algaze 2008, 7). He believes that a combination of natural advantages in the Mesopotamian alluvium determined a long term concentration of polities in the same area, which, in turn, through processes of competition, emulation and exchange determined and reinforced a process of economic growth that was eventually re-structured with the introduction of new forms of social control such as central labour organisation and new administrative techniques.

In this last re-visitation of his theory, Algaze admitted that his argument that “‘*trade was a transformative agent*’ in the formation of early Sumerian societies is ‘more a proclamation of faith than a conclusion made necessary by the evidence at hand’” (Algaze 2008, 156).

Despite the many detractors (see next section) of Algaze's reconstructive hypothesis I agree with Wright that *"All Mesopotamianists are indebted to Algaze for proposing a comprehensive understanding that accounts for much of the evidence available in the 1980s"* (Wright 2001, 124). Algaze reconstruction represented a significant challenge for the academic community and was an enormous stimulus for many scholars that raised the debate to a different level.

3.3.3 The 'northern perspective': arguing for local origins of complexity

As result of a long period of fieldwork activity in northern Mesopotamia, more archaeological evidence was brought to light (see for example Oates and Oates 1997; 2002; Oates et al. 2007; Emberling and McDonald 2001; 2003; Matthews 2004; McMahon et al. 2007 for Tell Brak; Frangipane 1993; 2001a; 2002 for Arslantepe; Gibson et al. 2002; Ur 2010 for Hamoukar; Stein 1999a; 1999b; 2001 for Hacinebi.) Many scholars began questioning the basis of Algaze's approach. Thirty-year's worth of evidence from 4th millennium BC northern Mesopotamian sites (in northern Syria, Iraq, Iran and south-eastern Turkey) emphasised shortfalls in Algaze's model. Research at sites like Tell Brak (McMahon et al. 2007; Oates et al. 2007), Tepe Gawra (Rothman 2002) and Hamoukar (Ur 2010) in Syria; Hacinebi (Stein 2001) and Arslantepe (Frangipane 1993; 2001a) identified evidence for autonomous complex polities that occurred in northern Mesopotamia prior to the so called 'Uruk expansion'. On the basis of this evidence less deterministic models, able to account for variability in the development of power relationships without a single centre, were proposed by many. The material remains from the north of Mesopotamia were telling a story about complex and powerful polities developing in that area prior to any apparent influence from southern Mesopotamian sites. Alternative models were proposed, arguing for a more active role of the so-called peripheries (Frangipane 2001a; Rothman 2001; Stein 1999a; Stein 1999b).

From the standpoint of one of the most imposing settlements of 5th and 4th Millennium BC northern Mesopotamia, the excavators of Tell Brak, in northern

Syria, have understandably argued that a high degree of social complexity is already visible in northern Mesopotamia from the end of the 5th millennium BC (Oates *et al.* 2007, McMahon *et al.* 2007, see further discussion in Chapter 7).

A similar picture seems to emerge from the recently published results of an extensive survey carried out to the east of Brak around the site of Hamoukar. On the basis of their surface collections of materials the project's director suggested that the site reached its greatest dimensions before the appearance of any trace of southern Mesopotamian influence (Ur 2010; other details on this site will be discussed in Chapter 7).

In Gil Stein's (1999a) "Rethinking World Systems ..." (Stein 1999a) he claimed that the World System model "*overemphasizes the external dynamics, such as long distance trade and the dominant role of the core, at the expense of internal dynamics in the so-called periphery*" (Stein 1999a, 3-4). Arguing that not all interregional relations constitute a World System, Stein suggests an analysis that requires the same kind of attention for both external and internal dynamics. Stein argues for a more flexible perspective (see also Stein and Rothman 1994), proposing two alternative models: the "*distance-parity*" model and the "*trade-diaspora*" model. The former implies that, due to transportation and communication obstacles, the capacity of a core region to control and influence a trade system decreases proportionally with the distance. The second, trade-diasporas model, describes "*interregional exchange networks composed of spatially dispersed specialized merchant groups that are culturally distinct, organizationally cohesive, and socially independent from their host communities while maintaining a high level of economic and social ties with related communities who define themselves in terms of the same general cultural identity*" (Stein 1999, 47). Both models regard the polities of the north as active agents, negotiating their role and position within wide economic and socio-political networks, rather than seeing interregional relationships as the result of the influence of a single polity over the others.

Similar conclusions had previously been reached by Frangipane in 1993 when she suggested that the emergence of complex societies occurred independently in different centres and regions following different paths (Frangipane 1993, 160). That idea was strongly confirmed by subsequent excavations in Arslantepe VII deposits that showed evidence for monumental buildings, craft specialisation, and administrative practices associated with redistributive activities. Frangipane has used this evidence to argue for an autonomous and gradual development of hierarchically organised societies in northern Mesopotamia, and, more to the point, the chronological evidence proves that the formative period of these complex societies is attested in deposits that are dated well before the appearance of any trace of contact with Uruk communities (Frangipane 2000, 2001a, 2002).

Frangipane also argued against the idea that trade was the main drive for southern communities in their move north, she stresses that the absence of warehouses or large storage facilities in most Mesopotamian Late Chalcolithic sites does not support the hypothesis of a strong centralised control of staple finance by elite groups as suggested by Algaze. She argues that if the *“public sector of the economy ... was not able to exercise any real and widespread control over the circulation of staple goods in its own hinterland... it must have been even less capable of influencing the management of economic activities over large distances”* (Frangipane 2001a, 315).

3.3.4 Unresolved questions concerning the relationships between north and south Mesopotamia

Although the debate on the emergence of complex societies in Mesopotamia has and still provides an important stimulus to research, many of the problems raised during the past decades remain unresolved. The lack of new excavations in southern Mesopotamia dramatically reduces the chances of comparing the evidence from the northern settlements with those from the south. Nonetheless, some elements on the nature of the relationships between southern polities and northern centres are now clearer. It now seems to be generally agreed that towards

the end of the 4th Millennium BC, there were several centres throughout Mesopotamia that developed a significant level of organisational complexity, each with different characteristics and peculiarities (See also Pollock 2001, 218-19) but all tending towards an increasing social inequality shown by the evidence for economic centralisation, mobilisation of wealth and labour, centrally administered goods transactions and practices of redistribution. Also the strategies of control over the surrounding territories varied in ways that can only partially be explained in relation to geographical and climatic conditions. It is then the nature of this complexity and how it was manifest in the daily lives of people living in these 4th Millennium BC communities that remains to be understood and explained.

Another problem that remains unsolved is the character of the relationships between different communities within 4th millennium BC Greater Mesopotamia. So much effort has been spent in explaining the most macroscopic aspect of the interregional relations, the so called Uruk 'colonies' in northern Mesopotamia. After Algaze every archaeologist involved in the debate has suggested slightly different explanations but none of them has proven to be comprehensive of all available data. As already mentioned, Algaze's original idea was that the colonies were commercial outposts controlled by the centres in the alluvium in order to obtain those raw materials such as wood, stone and metal lacking in southern Mesopotamia; although from a different perspective Stein (1999) also maintained that the founders of these outposts must have been groups of specialised traders. This idea was opposed by Frangipane with the argument that in the Mesopotamian alluvium there is no evidence for an organisation able to control such a long distance trade and suggested that those who founded the colonies might have been impoverished sectors of the southern communities that left the alluvium looking for new spaces in which to work and live (Frangipane 1996, 227). A similar idea is adopted by Pollock who argued that it was more likely for "*disaffected members of the lower classes*" (Pollock 2001, 220) to have left the homeland in order to find better living conditions; in support of this hypothesis she argues that the skilful reproduction of the southern material culture in the colonies strongly suggests that

among the people that founded them there must have been artisans able to reproduce architecture, pottery and other artefacts typical of their land of origin. In a similar vein Johnson (1988) and Wright (2001) suggested that the movement of populations from the south had been determined by some sort of social unrest or conflict that might have forced some sectors of the communities to leave. Schwartz argues against the idea that the colonies served the purpose of procuring raw materials for the alluvium as he notes that such materials “*were ostensibly scarce*” (Schwartz 2001, 256) in the region where Habuba Kabira and Jebel Haruda were founded.

What emerges from this brief summary of the various possible explanations of the origins of the so called ‘colonies’ is that the problem still represents a challenge for all those archaeologists who work in the area. Probably new excavations in the Mesopotamian alluvium would allow us to better understand the social and economic processes that led to the movement of large numbers of people towards the northern regions. Rothman suggested that the data available so far is not really suitable for answering all the questions archaeologists have raised over the last forty years; therefore researchers should invest resources and efforts to change the way we approach excavation and try to get as much information as possible from our data in creating “*teams of archaeologists with coordinated questions, techniques, and recording methods at settlements of all sizes and types in one area might give us a database commensurate with our questions and theoretical approaches*” and make “*our data ... able to live up to our theory*” (Rothman 2004, 108).

3.3.5 General traits observed in Chalcolithic pottery in Mesopotamia

Many of the significant changes that occurred in Mesopotamian communities during the 4th millennium BC have been inferred from the size and nature of the settlements and their architectural remains, evidence of administrative control of economic activities and based on a retrospective projection of the written texts that

appeared at the end of Uruk period. Pottery was in many cases the only source of information for those contexts where architectural remains were not present, as several sites in both southern and northern Mesopotamia were identified through archaeological surveys. For many years a great effort was put on the construction of reliable chronological sequences using pottery typologies in order to attribute sites and deposits to specific periods on the basis of the pot sherds retrieved. It has now become apparent that the study of manufacture characteristics and consumption of the ceramic assemblages (rather than the chronology of style groups) can offer better insights on the social organisation of the communities that produced them.

Academics who have described Mesopotamian pottery production between the end of the 5th and the beginning of the 4th millennium BC observe that it is characterised by a transition from a long tradition of handmade, skilfully decorated pottery of the Halaf and Ubaid period (roughly 6th and 5th millennia BC) to non-decorated, mass-produced and standardised production of the end of Ubaid and beginning of Late Chalcolithic period (4th millennium BC). Chalcolithic pottery is generally simpler, often coarser than in the previous period and the quantity of painted pottery decreases. Frangipane (1993) credits this trend, from decorated ceramics towards simpler and coarser ones, to a radical change in the way social messages were disclosed and transmitted. According to her argument, throughout the Late Neolithic and the Early Chalcolithic period in Mesopotamia decorated pottery played a relevant role in transmission of social messages, pots travelled and with pots travelled their social meanings. Therefore the gradual disappearance of decoration from the surfaces of pots during the 4th millennium BC suggests that pottery lost its symbolic function; *“pottery no longer seems to be designed to represent individuals and groups of individuals on the “outside”, but seems to be designed for some “internal” use, and not to be particularly representative”* (Frangipane 1993, 135). As also argued by Wengrow (2001), this process of simplification in pottery production techniques, seen from the Neolithic period to the Late Chalcolithic, seems to be directly connected with the increasing complexity of society, as larger scale production of more utilitarian pottery results in a greater

separation of producers and users and a reduced interest in the appearance and symbolic role of day to day ceramics. The investment of labour and skills on the finishing and decoration of the surfaces is limited to that which is required for the functionality of the pots.

Simplification and increasing coarseness is recognisable in many 4th millennium BC northern Mesopotamian pottery assemblages, which, despite regional particularities and distinctions is characterised by non-decorated, chaff-faced and mass-produced pots. Technologically, the main innovation is the introduction of a rotating device for shaping some of the pots (wheel); the use of the potter wheel requires specific skills that implied a certain degree of specialisation. Organic inclusions tend to prevail giving the characteristic 'chaff-face' to the pots' surfaces; also vegetal temper speeds up the drying and firing procedures with relatively limited consumption of fuel; in this respect the prevalence of organic tempered ceramics seem to reflect the need for abundant production in limited time (Palmieri 1985). Associated with this new system of pottery production shapes appear to become quite standardised and the first evidence for mass production of some pottery also occurs. This evidence suggests that pottery production is now in the hands of potters that worked to meet a demand for vessels used in new activities such as large scale ceremonies and redistribution practices, or ration distribution (Frangipane 2000; Pollock 1999; Rice 1981, Stein 1998). Such is probably the case for the so-called 'mass produced bowls' and those who produced them. Although phenomena such as morphological standardisation and central control of craft production are often associated with the development of groups of specialised or semi-specialised potters, it could be noted that some mass-produced items, in some particular cases, were probably made by non-specialised or even occasional potters. When the characteristics of the final product were basic, probably the skills required by the potters were minimal. A case in point are the 'bevelled-rim bowls', which are the coarser and most irregular of the mass produced vessels made in 4th millennium BC Mesopotamia, these bowls were probably produced in moulds (Miller 1981; Wright 2001) and it is reasonable to believe that no specialised skills

were required to produce them. Their characteristics and the function of this and other types of mass produced bowls are discussed in further details in chapter 5 with specific reference to the assemblage from Arslantepe VII, but for the purpose of this section their mention is important as they represent the 'extreme' case of utilitarian product, the farthest end of the process of 'simplification', mentioned above, that developed in direct association with the formation of progressively more complex social organisations.

So far I have traced the theories and approaches to the study of complex societies within which the discussion on Arslantepe VII will take shape. In the following sections of this Chapter I narrow the focus and look for more specific theoretic fields that are relevant to the interpretation of the specific data set from Arslantepe VII. All of the models and approaches that I am going to present are intrinsically connected to the debate on complex societies as they offer means to read the specific ways in which relationships between the different components of the community were negotiated and structured.

3.4 Reading social practices and dynamics inside 'complexity': further approaches for investigating social dynamics

3.4.1 Earle's chiefs and the organisational dynamics of complex political entities

In order to address the evidence for the early complex societies in the 4th millennium BC Mesopotamia I would like to draw upon the model proposed by Timothy Earle in "How chiefs come to power" (Earle 1997). Earle suggests a multilinear evolutionary approach that recognises the existence of several different routes to social complexity, with varied outcomes in terms of the internal organisation of the communities and in terms of the consequences of their choices. Crucially for this approach Earle focuses on the dynamics through which power is obtained and maintained in different ways. It is this acknowledgement of the flexibility and variability that is inherent in human experience that makes Earle's model particularly appropriate for interpreting the composite situation of 4th millennium BC Mesopotamian settlements and particularly for understanding the processes that determined their differences.

Earle argues that the success of a political system is determined by the "*chief's ability to control and extend access to the sources of power*" (Earle 1997, 14). Drawing on Mann's work (1986) he recognises three crucial "*sources of power*": economy, military might and ideology. All of these sources of power are interdependent, but they play different roles and the ways in which they are combined with each other determine the stability of the "*institution*" that is based on them. This is a key point of Earle's theory, as he believes that of the three sources of power the economy is the most relevant. Indeed, he argues that in order to create an institution that is "*expansive and centralised*" it needs to be based on a control over economic resources. I will argue that aspects of the economy and ideology as well as the way they interacted that are most pertinent to the analysis

of Arslantepe VII architectural remains and pottery assemblage, particularly given the presence of large ceremonial buildings containing hundreds of serving vessels.

According to Earle's definition, "*Control over the economy is a direct and material power over the lives of people*" (Earle 1997, 67) and this is the characteristic that makes economy the most important source of power. A distinction is made between staple finance and wealth finance. Staple finance rests on control over production of primary goods through the ownership of the means of production, or the ability to claim rights over the means of production. Chiefs are therefore able to mobilise a surplus that is partially reinvested in the intensification of production (building agricultural facilities such as irrigation systems for example) that reinforce the chief's 'rights' to the product of the lands. Wealth finance, that is generally associated with trade-orientated economies, rests on control over production of prestige goods and over the exchange system related to them (providing transport system, controlling trading routes, etc). Prestige goods controlled by chiefs have the function of symbolising privileged relationships with other elites, emphasising their predominant role within the community. Earle argues that both staple finance and wealth finance are necessary to the power of chiefs and elites, but that the balance of these sectors of the economy can vary significantly. This model is of particular interest for the interpretation of the evidence Arslantepe VII assemblage that points to the possible redistribution of staple goods.

3.4.2 Materialisation of ideologies and feasts

One of the sources of power analysed by Earle, ideology, is seen (in-line with neo-Marxist theories) as an apparatus of ideas and beliefs fashioned and manipulated by elites in order to reinforce and legitimise their control over economy and therefore their power. This idea is particularly relevant for Mesopotamian prehistoric settlements like Arslantepe where the archaeological evidence seems to suggest that administrative control system and redistribution (or

taxation) practices were somehow embedded in a ceremonial if not religious apparatus (this will be discussed in further details in Chapters 5, 6 and 7).

Earle stresses the importance of “*materialisation*” of ideologies, which occurs in translating ideologies into physical events like ceremonies, rituals, symbols and monuments; and it is through the materialisation of the ideologies that they become controllable. For ideologies to be a source of power they must be controlled by the elites (Earle 1997, 152). Among the materialisation processes indicated by Earle are: (a) the organisation of ceremonial events that can be controlled by restricting participation to certain groups of people for example, demonstrating to the community that they are able to afford the costs of ceremonies legitimising their right to perform such ceremonies; and (b) the creation of public monuments and landscapes that can be “*experienced simultaneously by large numbers of individuals*” (*ibid* 156). They send out a message of power that is easily understood by anyone and, as much as ceremonies if not more, are an instrument of propaganda as they show that the elite commanded sufficient power to manage labourers and finance for the building of monuments demonstrating implicitly their right to rule. Therefore, this theory is of particular interest when interpreting the context of the use and storage of mass-produced bowls.

The attention to the process of materialisation has the crucial advantage of using the materiality inherent in the archaeological evidence to address the otherwise abstract discourse on the intangible sphere of past ideologies.

Working on one of these means of materializing ideologies, feasts, Dietler argued that they offer a way to move “*beyond mechanistic typological reductionism in understanding historical transformations*” (Dietler 2001, 66). And they allow us to investigate the ‘*practices by which individuals create, maintain and contest positions of power.*’” (Dietler 2001, 66). In other words Dietler suggests that in order to study and understand past human societies avoiding the generalisations of evolutionist

‘theologies’ it is essential to investigate the actual ways in which social and political lives were experienced; and feasts are an ideal ground to do so.

The volume edited by Dietler and Hayden (Dietler and Hayden 2001) proposed a renewed focus on feasts and feasting in ethnographic and archaeological contexts. Theories and models developed in this volume have been extremely relevant to my assessment of the evidence from Period VII at Arslantepe. Authors in the volume use feasts to understand and interpret the dynamics of social power negotiation, in doing so they provide an approach through which archaeologists can consider how social complexity was experienced by people in the past. The main concept behind Dietler and Hayden’s work is that feasts represent unique arenas for the development of social dynamics and the negotiation of social relationships; a means for elite groups, or eminent individuals, to re-invest the accumulated surplus back into the community in order to establish or consolidate their authority; feasts can provide an ideological legitimisation of power and status, and they can create or strengthen alliances (Dietler and Hayden 2001). This approach can contribute to my first aim, namely to investigate the nature and the dynamics of social complexity as it was experienced within Arslantepe VII.

These ideas on feasts and their importance in creating and maintaining social relationships have already been employed in Mesopotamian contexts. Schmandt-Besserat contributed directly to Dietler and Hayden’s volume (Chapter 14) with an analysis that was mainly based on written texts and artistic representations of ceremonies and feasts. Barbara Helwing (Helwing 2003) looked for the means by which Mesopotamian elites created their power, and, how they obtained the legitimisation and ‘public’ consensus to this power. Drawing on Hayden and Dietler’s theoretical work Helwing refers to feasts and public ceremonies as social practices that *“provides an ideal stage for the maintenance and the transformation of meaningful human relationships on the one side, and that are open to manipulation on behalf of certain individuals on the other side”* (ibid 64). Helwing suggested that feasts and public ceremonies that included communal consumption

of food or drink must have been the instruments through which the emerging elites negotiated and legitimated their ever-growing power in prehistoric Mesopotamia.

In 1996, DeMarrais, Castillo and Earle, using three South American cases studies, stressed the importance of ceremonies as one of the main means by which ideologies are materialised and through which leaders can maintain and reinforce their power (DeMarrais, Castillo and Earle 1996). In their work, rituals and public events are viewed as particularly powerful means in social power negotiation (DeMarrais, Castillo and Earle 1996, 17) thanks to their immediacy and to their ability to reach large portions of the community. The frequent association of feasts and ceremonies with public consumption of food and/or drink is another element of large interest especially because it provides an important connection with the material remains that archaeologists may expect to find in sites where these kind of ceremonial practices were performed. Large quantities of food and drink were prepared, served and possibly consumed in appropriate areas. They argue that it is likely that the facilities needed for these activities such as cooking areas with associated storing areas, serving vessels and spaces capable of accommodating large numbers of people must have left distinctive remains in the archaeological record. In the following chapter we will see in further detail how Hayden translated this argument into a list of material remains that archaeologists should expect to find in connection with feasting activities (Hayden 2001, 40).

The feasting related approach so far described is extremely useful in the interpretation of some of the most characteristics aspects of Arslantepe VII remains. In the following chapters I argue that the practice of large ceremonies is the most plausible explanation for the large number of mass-produced bowls in monumental structures such as Building XXIX (Chapters 5, 6 and 7).

3.4.3 Ways of consumption: differential distribution of the remains from human activities

In line with these attempts to identify a direct connection between the theories and the archaeological evidence Turkon (2004) claims that it is possible to recognise indicators of the activities of elite groups from the differential distribution of material remains across settlements. This is useful especially in the case of those sites where more direct elite-indicators such as prestige items, monumental architecture or rich burials were absent (Turkon 2004). The existence of a complex social organisation in Arslantepe VII is arguable from the presence of buildings that for their layout and their dimensions were probably meant to serve 'special' non-domestic functions, possibly storage of large amounts of staple, redistribution activities or public ceremonies.

Drawing on Turkon's idea and trying to look at the consumption patterns within the excavated contexts of Arslantepe VII, I intend to focus on the dynamics of social relationships within the site. If we accept that the differential distribution of preserved material remains within a site is an expression of the different activities performed in the site and of their location, then it is possible to argue that the function and use of the different contexts found in Arslantepe can be established. This can be achieved through the comparative analysis of the archaeological contexts and the patterns of distribution of the portable materials found within these contexts.

3.5 Craft specialisation, standardisation and organisation of production

At the beginning of this chapter I pointed out that Childe was one of the first theorists to associate craft specialisation with urbanism and the emergence of 'civilisation' (Childe 1950). He argued that the fertile valleys between the Tigris and the Euphrates rivers some 5,000 years ago would have provided enough social surplus to allow the first cities to maintain full time craftsmen (*ibid* 8). Childe also argued that in the first cities sectors of the population who did not produce their own food (such as craftsmen specialists, functionaries, traders, priests etc.) must have been maintained by the ruling classes that managed the surplus obtained by the peasants in the form of taxation (Childe 1950, 11). Childe's analysis on the necessary economic conditions for the existence of craft specialisation is still virtually unchallenged and the suggested association of this phenomenon to complex forms of social organisation has been extremely influential in the wider debate on the origins of chiefdoms and states. As noted by Stein (1998, 18) craft specialisation is regarded by many as a crucial element for investigating the political economy of complex societies (see among others Rice 1981; 1991; Brumfiel and Earle 1987, Costin 1991; and also see following pages for further reference). In this last section I discuss how studies on craft specialisation have been used to investigate social complexity in past communities and how analysis of morphological variability can be used for identifying craft specialisation in an archaeological context. The ceramic assemblage of Arslantepe VII will be investigated for evidence of craft specialisation in relation to the pottery production rather than any other class of materials.

Scholars of material culture use pottery analysis as a key to understanding the conditions within which it was produced and used. An interest in studying the organisation of ceramic production emerged particularly towards the end of the 1970s. In a landmark article Rice (1981) stresses the importance of analysing craft specialisation and the environmental and socio-political circumstances that

determined it and poses some crucial questions that lead the way for further research in the following years (Rice 1981, 219). This marked the beginning of a burgeoning debate on the origins and different type of specialisation (for a synthesis of the early phases of this debate, see Rice 1991). It was largely agreed that the origins of craft specialisation were to be associated with the emergence of social differentiation and the formation of elite groups whose efforts in centralising staple commodities determined the conditions to maintain the specialists. Drawing on definitions Rice's definition (1981, 261) craft specialization can be considered as the circumstance in which individuals or groups of individuals are in the socio-economic position to be able to concentrate their activity (freely or forcedly) on the production of one particular category of goods, requiring that other members of their community will provide them with subsistence and other specialised commodities.

Often associated with the concept of specialisation is the issue of standardisation, which refers to the reduced degree of variability in the pottery's form and materials. Standardisation can be a product of specialist skills resulting from repetitiveness of a task but also by specific social requirements (see for example Longacre 1999). Some archaeologists maintain that the degree of standardization of a pottery assemblage may reflect the degree of craft specialization of the potters (Roux 2003). This is based on the assumption that the variability within an assemblage is due either to low levels of specialization of the potter or to the presence of many different potters, and vice versa, the uniformity is due to a higher rate of production. Various parameters can be considered to assess the degree of standardization of a ceramic assemblage: *"raw material composition, manufacturing techniques, forms and dimensions and surface decoration"* (Roux 2003, 279).

Although this is a fruitful field of analysis, when addressing the issue of standardization and craft specialization it is important to keep in mind that manufacture techniques, selection of raw material, decoration, etc. can be

influenced by other interrelated technologies (Sillar 2000b; Sillar and Tite 2000) and are often results of social choices that may have had little or nothing to do with efficiency or rate of production. As Lemonnier points out *“any technique, in any society, though, be it a mere gesture or a simple artefact, is always the physical rendering of mental schemas learned through tradition and concerned with how things work, are to be made, and to be used”* (Lemonnier 1993), 3). Several archaeologists have come to the conclusion that using statistical approaches to analyse archaeological assemblages may be, at times, misleading (for a wider discussion see Rice 1991, 270-271). Despite such limitations, these tools still provide archaeologists with the most robust means available for evaluating the variability of material according to type and time, as is discussed in more depth in the following chapter on methodology (Chapter 4).

The contribution of Costin and Hagstrum (Costin and Hagstrum 1995) attempted to bridge theories on specialisation and standardisation with the archaeological data. Costin and Hagstrum maintain that analysis of standardisation, labour investment and skills can provide information about the organisation of production especially if comparing different wares within the same assemblage or analysing the diachronic changes within the same ware. They identify eight possible types of specialisation that range from independent individual specialists to retainer workshops, in order to create this typology they use four parameters: context (attached vs. independent), concentration (dispersed vs. nucleated), constitution (individual vs. workshops) and intensity (part time vs. full time). The eight types are then matched against the four technological characteristics: Labour investment, Intentional Standardisation, Mechanical Standardisation, and Skill (Costin and Hagstrum 1995, Table 1, 624). In doing so Costin and Hagstrum identify what they call a ‘technological profile’ for each type of specialisation and therefore a framework of assumptions and expectations to apply and test against a given archaeological assemblage. Thanks to the presence of two distinct modes of pottery production, handmade and wheel thrown, the Arslantepe VII assemblage lends itself to this kind of analytical model. This approach is used to test the hypothesis

that some of the Period VII pottery was produced by more or less specialised potters. The result of this analysis, combined with all the other observations prompted by the material record will provide a clearer understanding of the social dynamics that shaped the experience of complexity within the Arslantepe VII community.

4. Methodology

4.1 Introduction

In this chapter I provide a discussion of the methodology applied in pursuing my research aims and objectives.

4.1.1 Fieldwork

All the information and data from Arslantepe VII contexts was collected during fieldwork in the form of artefacts, field notes, drawings and photographic records, and have been entered in a database in which each context and artefact description represents a single record (see Tables 1 and 2). The creation of this database aims to systematise and make more accessible all the available information concerning contexts and artefacts of Arslantepe VII.

4.2 Aim 1: The dynamics of social and political organisation

The first aim of my research is an analysis of the dynamics of the socio-political organisation of the Chalcolithic community of Arslantepe VII. I try to define the nature of the complexity of Arslantepe VII in terms of degree of economic centralisation, and the degree of integration within the different units of this community. To achieve this aim I concentrate on those indicators of social complexity that can be found in the archaeological record such as architectural monumentality, evidence of craft specialisation, differential distribution of artefacts and evidence for economic centralisation and redistribution activities. In order to understand the significance of the data from Arslantepe VII in the development of complexity, it is compared with the evidence from the Arslantepe VIII and VIA. Characteristics of ceramic production in Arslantepe VII are compared with those presented by the assemblages of Periods VIII (Balossi Restelli 2008; 2011 (in print)) and VIA (Frangipane and Palmieri 1988). Similarly, the monumental character of some buildings from Arslantepe VII is assessed not only in comparison to

contemporaneous buildings, but also in comparison to the architecture from Periods VIII and VIA.

4.2.1 Objective 1: Context analysis and elements of monumentality

In her work on the third millennium BC site Kurban Höyük Patricia Wattenmaker suggests that: *“residential structures and special-purpose buildings can be differentiated on the basis of architecture and associated artefacts.”* (Wattenmaker 1998, 66). She also argues how, in the available Mesopotamian record, public buildings can easily be distinguished due to their central location in the site, their relatively hefty dimensions, large walls, regular plans and for the care paid in their construction (Wattenmaker 1998, 67). Drawing on this work I also argue that in order to assess the monumental character of certain buildings a comparison with other structures within the same site is necessary. For this reason a comparative analysis of the buildings of Arslantepe VII is carried out so as to define differences in layout, dimensions, construction techniques and function. The structures analysed are also defined according to their location within the site and their stratigraphic relation with other contexts. Through the analysis of construction techniques I try to assess the relative time and care involved in the construction of the buildings being analysed. This includes a discussion of the building materials used, presence and characteristics of foundations, size of the walls, finishing of the floors and the walls, presence of decoration (wall niches, wall paintings), and particular features such as benches, ovens and platforms etc.

All the data I work on was produced as a result of the excavations conducted at the site of Arslantepe during the last 30 years. Under the direction of the archaeological team from Rome University ‘La Sapienza’ the site of Arslantepe is hand excavated (the occasional use of mechanical diggers is restricted to spoil shifting activities). The site excavation methodology is based on single context stratigraphic system with a recording system that was adapted to the characteristics of the site after the first few seasons. Every single event recognised during the excavation is recorded individually but, the main difference with the standard single context recording system is an ‘interpretive terminology’ which is used to name and number the contexts, for example pits are called ‘*kuyu*’ -k- (Turkish for pit) and

follow an independent numeration; the same is for delimited spaces and intentionally made surfaces that are called '*ambienti*' –A- (Italian for room or more generically space) and these are numbered independently from other archaeological contexts.

In the present work the interpretation of the function of the buildings is based on a comparison between the architectural layout of the different buildings, their sizes and the internal built-in features such as hearths, benches, platforms, ovens etc. This is integrated with the analysis of differential distribution of portable artefacts found within the buildings which is carried out in order to better define functional differences between the various archaeological contexts (both domestic and non-domestic). Although in the present research the main focus is on the pottery assemblage, the functional assessment also considers other portable artefacts recovered from Arslantepe VII contexts including stone and metal tools such as pestles, mortars, arrowheads, blades, scrapers, chisels, etc. and clay objects such as spindle whorls, andirons, and clay sealings. Finally, although not considered with the artefacts, faunal and floral remains retrieved from the different structures are also discussed when available.

This analysis is undertaken with a careful consideration of the formation processes that characterised the different archaeological deposits. Understanding archaeological contexts and their formation processes is a necessary condition to construct a coherent interpretation of the buildings' history from its construction to its destruction. Where available I will consider evidence for sudden destruction, the process of abandonment and potential reuse when interpreting the artefactual remains and potential function of the buildings. This offers a more secure ground to understand and interpret the dynamics behind the distribution of portable materials. Figure 4.1 presents a sample of the database I created to record the buildings within Arslantepe VII, the recording of context numbers was then used to link this to the artefacts found within the building.

4.2.2. Objective 2: Pottery characterisation, organisation of ceramic production, patterns of use and distribution.

Ceramic assemblages, in archaeology, are often used as a tool to investigate the social organisation of the communities that produced or used them. I followed two different methodological paths in order to investigate the nature of the social organisation of the Arslantepe VII community from a study of its ceramic assemblage. One method studies the organisation of pottery production through the analysis of standardisation and specialisation; the other looks at the ways pottery was used and consumed through the study of its physical characteristics and its distribution across the site. I adopted this combined approach to offer multiple perspectives and, when needed, calibrate the results from one approach with the other and vice versa. I work on the assumption that looking at the organisation of production of a pottery assemblage is a fruitful opportunity to retrieve information on the social organisation of the community involved in its production (Rice 1987; Costin 1991, 2000; Costin and Hugstrum 1995; Roux 2003; 2007; Roux and Courty 1989; Roux and Miroshedji 2009; Skibo and Feinman 1999; Sinopoli 1991, Orton et al. 1993). Being able to assess a certain degree of craft specialisation, with the consequent need for exchange or redistribution in order to recompense the craft specialist, can be informative about the degree of social integration of the different groups that form a community; while patterns of artefact distribution and consumption can be indicative of social differentiation within the community (Wattenmaker 1998, Turkon 2004).

Characterisation of the assemblage

All artefacts studied in this research are currently kept in store at the site of Arslantepe or in the Malatya museum. As a team member of the archaeological project, I was granted direct access to the artefacts from Arslantepe VII. Hence all the analysis, measurements, and notes are based on direct observation of the artefacts. These are located and identified in the store according to the number of the archaeological contexts they were found in; all the diagnostic sherds are individually marked as are many non-diagnostic sherds, all of which are kept in clearly labelled boxes. The initial step in the methodology applied in the present

research was a reassessment of the work undertaken on Arslantepe VII pottery excavated up until 1992. This included the revision of the typological classification proposed by Trufelli (PhD Thesis, Rome University 'La Sapienza' 1992, and Trufelli 1994; 1997) in light of the new materials and contexts excavated from 1992 to date. All the *in situ* portable materials were sorted and recorded in a database in which each object is entered as a single record. All the sherds and complete pots were sorted into categories, created on the basis of similarities and dissimilarities in terms of their fabrics and surface treatment. After long and painstaking work – finding joining sherds and restoring them – the remaining sherds were counted and weighed; finally the diagnostic sherds were kept aside for typological assessment. In the case of Building XXIX the estimated vessel number model (Orton, Tyers and Vince 1993) was applied and the approximate number of containers present on the floors of the building was calculated.

Along with the contextual elements defining the provenience of the objects, technological variables such as fabric, shaping techniques, firing conditions and surface treatment; functional and stylistic variables such as shape, decoration, measurements (height, maximum diameter, mouth diameter) and use wear; specific features such as marks, knobs and spouts were recorded in the database. Figure 4.2 presents a sample of my ceramic recording database.

Figure 4.2 – Sample of Arslantepe VII pottery database

ARSLANTEPE PERIOD VII - POTTERY

IDENTIFICATION

ID

44

Drawing N°

375-90

Context

A617

Layer/Label

L3 RI33

Year

90

MANUFACTURE TECHNIQUES

Ware

TGC

Type

BIII

Shaping Technique

Mixed Techn.

External Surface

Roughly smoothed

Internal Surface

Smoothed

FRAGMENT DATA

Fragmentation:

Almost complete

Rim/mouth diameter

26 cm rim diam

Max diameter:

Height

9 cm

ADDITIONAL ELEMENTS

Potter mark:

Present

Mark Description

N°9 of Tr. Typology; two long straight lines on the scraped base.

Decoration

Description

Orange-pink coarse chaff ware with occasional mineral incl, grey not-fully oxidised core. Thin, parallel, horizontal lines might suggest the use of a rotating device. The base is flint scraped.

Image

375-90

ARCHIVE DATA

Archive/Museum

Notes

My notes - checked '07

Box

A617 + L. SCF.

Record: 6 of 73

Filtered

Search

Organisation of ceramic production

Since the late 1970s many archaeologists have focused on the organisation of pottery production and the relationship between the degree of standardisation within a specific type of vessel or within the entire assemblage in order to assess the role of specialised artisans (See Chapter 3 for further discussion and references). The presence of ceramic groups distinguished for their manufacture techniques, or their degree of physical variability, has also been used as an indicator of different producers. The comparison of the manufacturing technologies used in the forming of different types of pot and different ceramic classes can provide us with information about the degree of specialization of the potters and the organization of artisans and workshops.

The pottery assemblage I analyse is characterised by the presence of at least two macroscopic ceramic groups differentiated by different production techniques, one of them shows signs of the use of a rotating device like a wheel or a tournette, the other is clearly hand-made. This permits a comparative approach to be applied in the analysis of the ceramic assemblage as advocated by Costin and Hagstrum:

“Analysis of technological data bearing on standardization, labour investment, and skill allows us to identify general trends in the organization of production. Such analysis is most useful in comparing different wares from a single assemblage in terms of their relative organization of production or change in a single ware over time” (Costin and Hagstrum 1995, 619).

The characteristics of fabrics, shaping techniques, firing conditions and finishing techniques of individual pots or sherds are recorded on the basis of direct observation of the objects in the field. Although no in-depth petrographic or chemical analysis is carried out here, the fabrics are distinguished according to the type, size and quantity of inclusions (Orton et al. 1993, 230 ff.), colour and density of the fabrics. The shaping techniques are assessed on the basis of visible indicators such as regularity or irregularity of profiles and surfaces and thickness of the walls; but also on the basis of visible signs of use of the potter's wheel such as the so called 'string cut' mark (Rye 1981, 75 and Figures 63-64). In the same way, firing

conditions were inferred through the observation of the exposed fractures of the pots looking at the degree of oxidation of the cores. These characteristics, together with the comparison of the manufacturing technologies applied to the production of different types of pot and different ceramic classes, are used to investigate the organization of ceramic production.

The degree of standardisation of the different ceramic types of Arslantepe VII assemblage will be assessed through the analysis of morphological variability within the types. Several authors argued that a higher degree of standardisation is evidence for more specialised production, whereas higher variability may suggest a lower degree of specialisation (Costin 1991, 2000; Costin and Hugstrum 1995; Roux 2003; Longacre 1999; Sinopoli 1988, etc). The work carried out by these scholars has provided me with suitable methodologies that can be applied to Arslantepe's assemblage. Drawing on their methods I calculate the morphological variability of Arslantepe VII pottery by measuring height, maximum diameter, rim diameter and estimating the volume of the vessels, these measurements are compared (Height/max diameter ratio, rim diameter/max diameter ratio, height/rim diameter ratio, volume/height ratio, volume/rim diameter ratio) to evaluate the coefficient of variation for each measurement and each ratio. Standardisation and craft specialisation are not a present or absent condition, however, there are greater or lesser degrees of standardisation and specialisation which can be assessed through a comparative approach (Costin 1991). Comparing different ceramic groups within the same assemblage allows us to consider the social and economic implications of the quality of certain craft production (Roux 2003); further discussion of the approaches used to carry out these analyses can be found in Chapter 5.

Analysis of uniformity and variability is considered by many a fundamental tool to assess the degree of standardization and craft specialization. The comparison of the degree of morphological variability within different ceramic types as well as the analysis of the finishing techniques can inform us about the labour investment and the different attention dedicated to each type or ceramic group. This should possibly lead to observations on the different functions of the pots, the different

uses and the significance that particular types/classes had in the daily life of the community that used them.

Petrography: The location of ceramic production and its organisation can also be assessed through an analysis of the choice of raw materials and the mode of their exploitation. Consistency in the use of raw material sources or their distance from the site where the ceramics were produced or used can also be informative about the political and economic stability of their production. For Arslantepe VII assemblage these aspects are briefly discussed using the results of the petrographic analysis already carried out on some of the materials (Angle, Morbidelli and Palmieri 2001; Angle, Morbidelli and Palmieri 2002; Frangipane, Angle and Palmieri 1996).

Potters' marks: Many of the pots and sherds from Arslantepe VII assemblage were marked with incised signs applied on the pots when they were in a 'leather hard' condition, before they were fired. These signs were originally interpreted by the archaeologists (Palmieri 1985) as marks applied by the potters to recognise their own produce when using communal firing areas. Other interpretations offered for similar marks in other assemblages regarded them as symbols associated to the contents or the volumes of the pots (Oates and Oates 1993) on which the marks were applied or even symbols related to the organisation of ceramic production. Understanding the function of potters' marks would add an important element to our reconstruction of the dynamics and the organisation of the pottery production in Arslantepe VII. In the present research, following a review of Trufelli's assessment and typology of the marks (Trufelli 1997) in light of the evidence from more recent excavations, I analyse the relationship between the different types of marks and the types of vessels they were applied on, the distribution of marks on specific ceramic classes or specific contexts. I also look at the distribution and changes of the marks across time. The diachronic analysis of potters' marks within the various phases of Period VII includes an overview of the presence/absence of these marks and their use in Period VIII and VIA in order to compare their function with those of Period VII.

Function and consumption of ceramic artefacts in Arslantepe VII

Function. Partly due to the inherent characteristics of an assemblage that lacks significant decorative patterns and partly according to the specific objectives of this work the typology proposed here mainly aims to identify the functions of the pots. The terminology used to identify the ‘types’ at Arslantepe is based on the previous work at the site by Alba Palmieri (1968, 1978), Marcella Frangipane (1993, 2000) and Francesca Trufelli (1994, 1997). To address the function of these pots I draw on the work of scholars like Smith (1985, 1988) and Braun (1980, 1983), who argue for the existence of a direct relationship between the shape and size of pots and their use. The ceramic vessels, in the present work, are grouped together on the basis of their physical characteristics such as shape, size, weight and surface treatment in order to determine the physical capabilities or limitations of a specific pot to perform specific actions. An assessment of the mechanical characteristics of the pots such as thermal shock resistance and permeability (based on the visual observation of shape, thickness of the walls, fabric composition and surface treatments) was also carried as a further consideration in the delimitation of functional groups. Thermal properties of the pots are related to the thickness of the walls, their overall shape, surface treatments and especially the temper used in the composition of the ceramic (Rice 1987, 229); the permeability is also affected by the surface treatment of the vessels, with slips and burnish reducing the permeability (Rice 1987, 231). I use this information to group the vessels into functional classes.

In particular cases the possible functions of the pots assessed in this manner are then combined with evidence of specific uses to test the reliability of the functional typology. Use-alteration evidence such as abrasion, carbon deposit, etc. when available, may allow us to determine one or more of the ways the pots have been actually used (Skibo 1992, 46). A more comprehensive description of the typology and the classes is provided in Chapter 5.

Consumption and social meaning of portable materials. Following the work of Wattenmaker (1998), Dietler and Hayden (2001) and Turkon (2004), I analyse the patterns of consumption of the ceramics within different contexts. Building up on the argument that the activities carried out in a specific building can be reflected in

the artefacts retrieved from it, authors such as Wattenmaker and Turkon argued that differential distribution of portable artefacts is informative on the ways buildings were used and, as a result, on the social groups involved in those activities. Turkon for example, working on a site where typical indicators of social status such as prestige objects and luxury items are missing, argues that the presence of an elite group can be identified by the differential distribution of artefacts: *"The elites are involved in restricted activities that create and maintain their power, such as supervising and regulating production, overseeing religious ceremonies ... As such, the elite should be less involved in domestic activities and elite trash should include traces of their specialist activities (feasting or religious paraphernalia) and lack remains of mundane domestic tasks."* (Turkon 2004, 226). Along a similar line Wattenmaker argues that *"Domestic structures might have a wider range of materials than structures that served specific function..."* (Wattenmaker 1998, 68). Dietler and Hayden suggest that the archaeological evidence for 'specialist activities' such as feasts and ceremonies, where large quantities of food and/or drink were prepared first, then served-up, and finally consumed by a large number of people, could result in distinctive remains for each stage in this process, with specific places and tools appropriate for the preparation and the consumption of the meals including the large quantities of serving vessels involved in the ceremonies (Dietler and Hayden 2001).

Drawing on these arguments and in order to define how the pottery was used and what was the social function it covered I analyse the differential distribution of the ceramics in the various contexts of Arslantepe VII, and try to identify patterns of association of specific categories of pots with specific contexts or features, as well as with other portable materials. This, in turn, feeds back into our interpretation of the nature of the archaeological contexts within the same structure or in comparison with other buildings and the activities that were carried out within. Determining the function of the buildings and the way pottery was used in them allows us to infer aspects of the social organisation of the community of Arslantepe VII.

4.3 Aim 2: The regional framework

The second aim of the present work is to understand the role of Arslantepe within the context of northern Mesopotamia during the 4th millennium BC.

In order to tackle the issue of the role of Arslantepe within regional and interregional framework a comparative analysis of Arslantepe VII social and political organisation with other contemporaneous sites within northern Mesopotamia is carried out. The analysis is applied on two different regional scales: moving from the area of the Taurus Mountains I extend the comparison to other major sites in northern Mesopotamia to the south of the Taurus.

4.3.1 Objective 1: Regional analysis

Firstly I look at the northern section of the Euphrates valley, where Arslantepe stands (in the Malatya Plain), and the south-eastern range of Taurus Mountains in the attempt to identify and describe the potential network of relationships Arslantepe had with its most immediate neighbours. The main concern is to identify possible contemporaneous sites in the area and to define, if possible, the nature of the relationships between the sites. On the basis of the archaeological surveys carried out in the Malatya plain (Di Nocera 2008) and the neighbouring area of the Keban basin (Whallon 1979; Ozdogan 1977) the general impression is that sites contemporaneous to Arslantepe VII are relatively few and identified only by scanty remains. Although this would not allow a fully comprehensive comparison of the relationship Arslantepe VII had with the other sites, nonetheless a review of the available data should be sufficient to formulate hypothesis about the network of relationships in the area in the mid-4th millennium BC. For this reason I also look at possible relationships of Arslantepe VII with the area to the south-west of the site in the plain of Kahramanmaraş. The relationships between these two areas have rarely been considered, but the results of recent survey projects in the area of Kahramanmaraş (Carter 1994; 1995) offers a new observation point to look at the networks within the northern outskirts of Mesopotamia in central and eastern Anatolia.

The research objectives that prompted the survey projects mentioned above varied from focused regional interests and specific research questions (such as in the case of Di Nocera and Carter in their respective areas) to emergency interventions prior to the flooding of the Keban basin due to the construction of dams along the Euphrates River. Therefore the practical methods and the outcomes of these surveys vary significantly. Nonetheless, I have reviewed the quantity and quality of available information in order to map all the sites that, on the basis of their artefacts, can be considered contemporaneous to Arslantepe VII. Although in most cases (due to the lack of excavation data) it will be impossible to assess the settlement size, monumentality or other indicators of social complexity, I believe that, even with this limited range of information, it permits a wider regional consideration of what role Arslantepe played during the 4th millennium BC.

4.3.2 Objective 2: Interregional analysis

I then expand my overview to the rest of northern Mesopotamia down to the Balik and Khabur Valley (northern Syria). This implies a comprehensive scan of the archaeological literature on 4th millennium BC archaeological sites in northern Mesopotamia in order to identify relevant terms of comparison for Arslantepe's data. Expanding the view from a local context to a wider regional area is essential to determine the actual potential of a site like Arslantepe. To the south of the Taurus Mountains there is a number of excavated 4th millennium BC sites (Zeytin, Hacinebi, Sheik Hassan, Habuba Kabira, Tell Brak, Leilan, Hamoukar, Tepe Gawra) and some of them provide a useful and informative comparison with Arslantepe VII. The comparison will concentrate on the geographic setting (looking for economic and political potential of the natural environment), archaeological contexts, economic organisation and portable artefacts with specific attention to the indicators of social complexity such as architectural monumentality and standardisation of ceramic production. The size of Arslantepe is compared to the other sites with a focus on the size of 'arable land' surrounding the sites, their proximity to water sources or sources of other materials such as wood, stone, clay, metal ores, etc. The buildings of Arslantepe are also compared to similar structures found in other sites in terms of their size, building techniques and the artefacts found within them. The ceramic

assemblages are compared in terms of their general characteristics according to what is discernible from the respective publications.

4.4 Aim 3: Formative processes of social complexity

My last aim is to assess the contribution of Arslantepe VII and prehistoric Mesopotamia in our understanding of the formative processes of early complex societies.

4.4.1. Objective 1: Arslantepe in the wider debate on the emergence of social complexity.

I discuss the contribution of the data from Arslantepe VII in detecting the formative process through which early complex societies emerged in the past. In doing this I try to define what can be learned from the study of Arslantepe that could be applied to other sites. I will address not only the long standing debate on the relationships between southern and northern Mesopotamian polities during the 4th millennium BC but particularly regarding the formation processes of social complexity that had been debated for years through a range of different approaches and case studies. Ultimately the question I try to answer is ‘Can the evidence from Arslantepe VII feed back into this debate and if so, to what extent?’

5. Analysis of the ceramic assemblage from Arslantepe VII

5.1 Introduction

In this chapter I present an overview of the ceramic assemblage of Arslantepe VII which represents the bulk of my dataset. This should set the scene for the analysis and the discussion presented in the following chapters. The ceramic assemblage of Arslantepe VII is used here as an indicator of social complexity of the community that produced and used it. I work on the assumption (outlined in Chapter 3) that the study of the production processes of a pottery assemblage can produce information on the social environment behind this production. More specifically the presence of different production set-ups within the same settlement or the evidence for craft specialisation could indicate that different groups of the community were dedicated to different activities. This, in turn implies a degree of economic integration between these groups and as a consequence a certain level of social complexity and organisation. Also discussed in Chapters 3 and 4 is the idea that the study of the differential distribution of the artefacts in the buildings of a site can show how different activities were undertaken in different areas, by different people who presumably had different roles within an integrated community. Drawing on these ideas I concentrated on the evidence for craft specialisation and differential distribution of the ceramics and other artefacts (Chapter 6) in order to address the issues of economic centralisation and degree of economic interdependence between the different units of the community of Arslantepe. In the following pages I will discuss the functional typology within which the assemblage is organised and the different ware classes and elements of the manufacture technologies observed from the visual analysis of the pots; this will lead to the discussion on the degree of specialisation of the pottery production detectable at Arslantepe VII. Finally in order to contextualise Arslantepe VII ceramic production within a wider regional frame I will discuss some similarities between Arslantepe VII ceramics and those from other contemporary sites in the surrounding regions.

5.2 Arslantepe VII ceramic assemblage: an overview

5.2.1 Earlier studies

Samples of Arslantepe VII ceramic assemblage were first published by Palmieri in preliminary excavation reports (Palmieri 1969; 1978; 1985) and by Frangipane in a series of works analysing the cultural changes occurring in 4th millennium BC Mesopotamia (Frangipane 1993; 1996). The first broad study of this ceramic assemblage was carried out in 1992 by Trufelli, as part of her doctoral research project at Rome University 'La Sapienza'. Her work was summarised in two articles published in 1994 and 1997 (Trufelli 1994; 1997).

In order to 'locate' chronologically and culturally the prehistoric remains of the site and also in line with the academic trend of her time Palmieri focused her attention on identifying links and similarities between Arslantepe and other sites in northern Mesopotamia. She created a preliminary typology for Arslantepe's pottery which identified stylistic and formal similarities with previously published pottery from northern Mesopotamia, this was crucial in the interpretation of the archaeological sequence of the site and to place Arslantepe within the framework of the prehistory and proto-history of the Near East. As far as Period VII's pottery is concerned Palmieri was also the first person to identify the significance of this production in interpreting the role of Arslantepe in the socio-political changes that were occurring in Mesopotamia during the 4th millennium BC; Palmieri highlighted the appearance of wheel-thrown pottery, the abundant presence of chaff faced ware and of coarsely finished bowls (see Section 3.3.5 and 5.8.1). Further developing Palmieri's ideas Frangipane stressed the stylistic connections of Arslantepe VII ceramics with the pottery of phase "F" in the sequence created by Robert and Linda Braidwood for the sites they studied in the Amuq area in the plain of Antioch (Braidwood and Braidwood 1960). Frangipane was also the first to observe that the evidence of increased social complexity provided by Arslantepe VII and VIA ceramics was crucial for arguing that complex forms of social organisation in northern Mesopotamia 'were not imported' from the polities of southern

Mesopotamia (see the debate on Uruk culture expansion outlined in Chapter 3; also Algaze 1989; 1993; Frangipane 1993).

Trufelli's contribution to the study of Arslantepe VII ceramics consisted in a more detailed characterisation of the assemblage; she identified several ware classes and defined the stylistic typology, which, in turn provided a more refined tool for the comparison with other contemporary sites in northern Mesopotamia (see Section 5.8 for further details and discussion). Trufelli worked on a quantitative analysis of thousands of fragments found before 1992 which allowed her to describe some interesting patterns of distribution of different ceramic classes throughout the site; particularly relevant for the present work is her finding that handmade wares were generally more present in the north-eastern part of the site while the wheel-thrown wares prevailed in the sample from the western slope of the mound (Trufelli 1993, unpublished PhD thesis, 242-243), the relevance of this evidence is discussed in further details in this and the following chapters. Another important contribution offered by Trufelli's work was the study of all the potters' marks impressed on the pots and fragments of Arslantepe VII. The systematic study of the marks (Trufelli 1994) created a comprehensive overview of their distribution in Arslantepe improving our understanding of the ways pottery production was organised and providing an important base in support of the increasing social complexity hypothesised by Palmieri (1985) and Frangipane (1993).

5.2.2 The present work

During my first fieldwork season (2005) a revision of Trufelli's typology was carried out in order to verify that her categories were applicable to the newly excavated artefacts (the yearly preliminary reports and field notes are currently being collected for a monographic publication on Period VII) As result of this revision, despite minor adjustments, the majority of the pots and fragments examined fitted within the ware classes and the stylistic types identified by Trufelli, proving not only the comprehensiveness of her work but also a high degree of consistency and continuity across the assemblage. Nonetheless, following this preliminary step a new subdivision of the pottery assemblage into groups was

needed and was carried out on the basis of visual examination of the sherds. Functional categories were identified on the basis of the physical abilities of the pots to perform certain activities according to their morphological characteristics, dimensions and surface treatments. The dimensions of the pots (height, rim diameter, maximum diameter, etc.) were firstly measured on the actual artefacts using tools such as callipers, hand tape, and rim charts; they were then double checked on the drawings using an application called Pot-Utility1.05Win provided on the ARCANE project¹ website; the same application was also used to calculate the volumes of the pots. Ware classes were determined on the basis of the analysis of the technological variables of the pots; these include fabric (nature, quantity and dimension of inclusions), shaping techniques (handmade, wheel-thrown or mixed techniques), firing conditions (oxidation or reduction of the surfaces or the sections), and surface treatment.

In some of the following figures the vases are identified by their drawing number which is unique for each vase. This number is effectively the main identifier for the pottery from Arslantepe excavation and is the link between the ID numbers generated by my database and the archive of the expedition of Arslantepe which is kept at Rome University “La Sapienza”.

5.3 Functional categories

The idea of identifying the activities carried out in a room through the objects found in it implies an agreement on the function of the objects, or at least the identification of different functional classes even if the precise use or uses of an object cannot be determined. For this reason an attempt to define the possible functions of the ceramic containers is needed before discussing the differential distribution of portable artefacts in the archaeological contexts (see following chapter).

¹Associated Regional Chronologies for the Ancient Near East and Eastern Mediterranean
<http://www.arcane.uni-tuebingen.de/index.html>

The ceramic containers from Arslantepe VII are grouped in functional categories that were determined on the basis of the mechanical and physical ability of a pot to perform a particular action.

Previous studies (Braun 1980; Henrickson and McDonald 1983; Smith 1983; 1985; 1988) have focused their discussion on attempts to determine specific correlates between the physical characteristics of ceramic containers and their function. Through the association of ethnographic examples and predictive mathematical formulas some of these studies showed that it is possible to determine some correlation between shapes and functions of the pots produced within specific cultural area (Smith 1985, 307). However, the same correlates could not be automatically extended to other areas and people. This is due to the fact that pots, as much as other artefacts, are the products of choices that, far from adhering strictly to the principles of modern material science, are culturally determined. Social beliefs and local practice create the needs for a certain product, their shape and their manufacturing techniques (see also Lemonnier 1993).

Nonetheless the studies mentioned above have shown that there are some physical characteristics of the pots that make them more or less suitable for a particular activity, certain choices of the potter can enhance one or another quality of the pots such as strength, stability, porosity, resistance to external stress, capacity, transportability. Although direct relationships between form, technology and function cannot be generalised, they can be considered in an 'idealised way' (Rice 1987) referring to general shapes and uses. For instance a round, uniform profile with no angles as well as the presence of mineral temper in the paste make a pot more resistant to exposure to thermal stress and therefore suitable for cooking. Similarly, very heavy storage jars with restricted orifices are suitable for long-term storage but are not the most suitable for being transported; shallow bowls are not well suited for storing or carrying liquids but can be used to display, serve and consume solid and semi-solid foods. However, individual ceramic containers could have been used in several different ways and may have had multiple functions regardless of their technological characteristics. Furthermore, technological choices in the production of pottery do not necessarily depend solely on the need for

efficiency. By combining the technological and mechanical characteristics of the pots with their formal attributes and, when possible, with the direct archaeological evidence of their manner of use, I indicate a range of possible activities that the vessels were capable of performing.

The following categories are intended as tools for looking at the potential use of the pots. I appreciate that the terminology used here may create explicit association between forms and functions. It is not my intention to suggest that the precise use of these pots is known, rather I am seeking to define categories of pottery with distinct formal characteristics that constrain the vessels potential functions. However, it is my intention to express these categories using understandable terminology rather than obscure jargon and I therefore adopt names that will allow the reader to visualise the pottery forms.

In some instances, for example the bowls, the same term is used with the adjectives small, medium and large which refer to three dimensional categories. These categories were determined by plotting together all the volumes of almost 800 vessels (Figures 5.1) and interpreting the clusters in the range (from the smallest to the largest of the bowls).

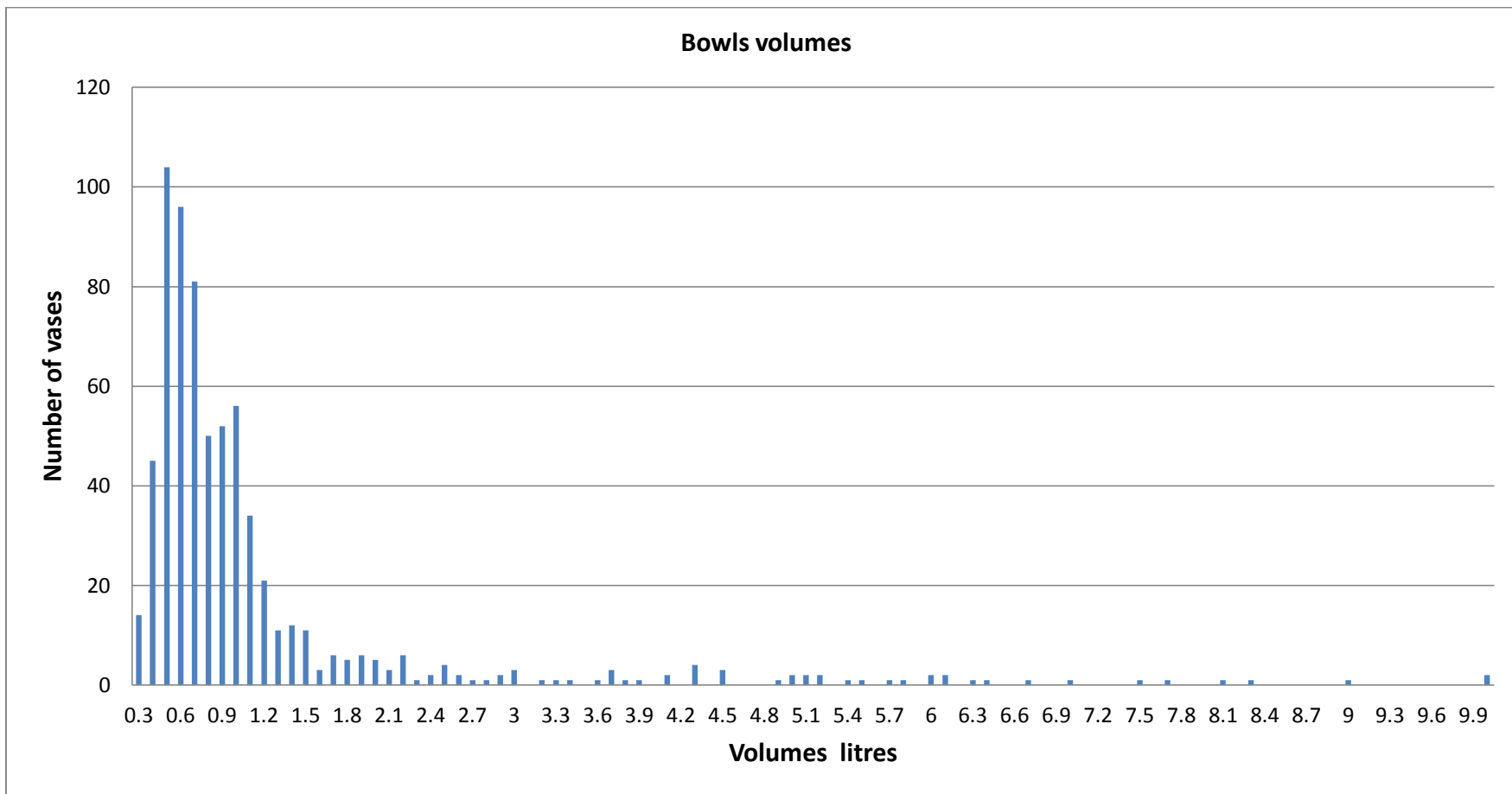


Figure 5.1- Histogram showing the volumes of all the bowls from Arslantepe VII

In order to improve the readability of the values shown in Figure 5.1 they are split in two other charts showing the volumes from 0.5 to 1.6 litres (Figure 5.2) and from 1.7 to 10 litres (Figure 5.3). The sample was divided at 1.6 litres because of the significant the drop in number of bowls compared to all the previous values (see Figure 5.1).

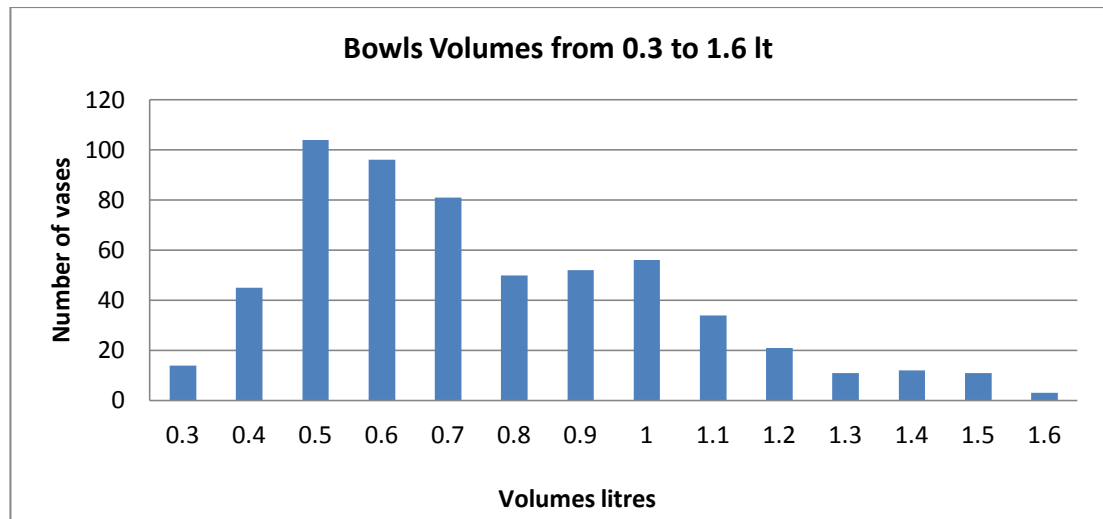


Figure 5.2 – Histogram showing the volumes of the bowls from 0.3 to 1.7 litres.

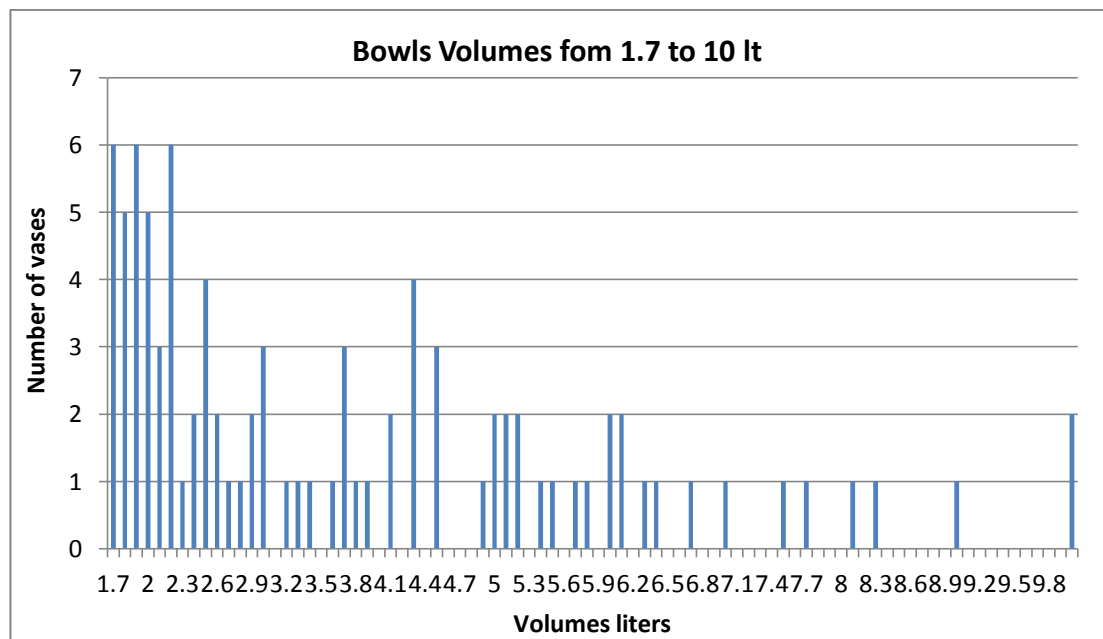


Figure 5.3 – Histogram showing the volumes of the bowls from 1.7 to 10 litres.

I suggest that some of the gaps (in particular the ones between 1.5 and 1.8 and between 4.5 and 5 litres) in the plot reflect intentional distinctions between different dimensional groups created by the potters. I am aware that this method does not offer undisputable truths on the actual dimensional distinctions made by the potters. It suffers from two obvious biases: firstly we can only deal with a sample of the production created by a number of agents such as conditions of preservations, excavation strategies and several other; secondly, this method brings together objects that were produced during a 400 year time span and the function and the perception of some of the artefacts used in the Arslantepe community might have changed during this time. I also make a distinction between ‘individual bowls’, referring to those objects that due to their size (relative to the assemblage) are more suited to be used by a single person at a time, whilst larger vessels that could have been used to prepare or serve larger quantities of food for several individuals at the same time are referred to as ‘communal bowl’.

1. Small Bowls (Figure 5.4) – refers to all shallow, unrestricted shapes with out-flaring walls whose capacity is no larger than 1.5 litres. Although 1.5 litres is a large amount of food for an individual I accounted for extra space that could be needed to prevent spillage of semi-liquid food such as stews or soups. Their profile is generally conical or hemispheric. Their shape and dimension make these objects very accessible both for filling and emptying of material and therefore most suitable for immediate consumption of relatively small quantities of solid and fluid food most probably by a single person at a time or some form of manipulation of their contents. The large majority of these bowls were mass-produced with the aid of a rotating device, their surfaces were roughly smoothed and never decorated (see Section 5.5 on mass-produced bowls), other bowls were handmade and had burnished surfaces.

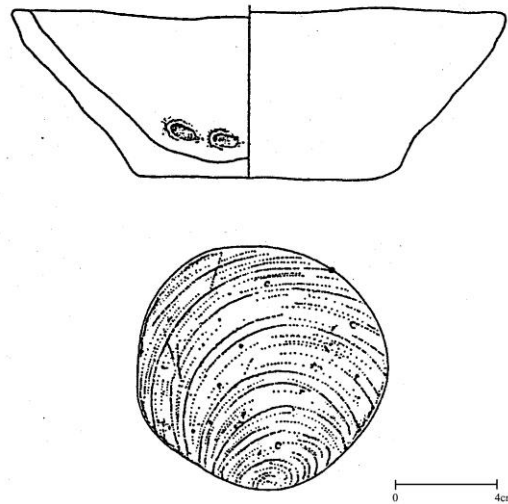


Figure 5.4 – Small bowls (After Trufelli 1993 – Table 1)

2. Medium and Large Bowls (Figure 5.5) – These are distinguished from the first group as they were suitable, due to their capacity, to be used by more than one individual at a time and also for preparing food for groups of people. Medium bowls are those bowls whose capacity ranges from 1.7 to 4.5 litres. Whilst the capacity of the large bowls ranges between 5 and 10 litres. These bowls were mainly produced in the chaff-faced coarse ware (see following section) but some of them were treated with red slip and burnished although rare, some fragments of medium size handmade bowls are also present.



Figure 5.5 – Medium bowls (Arslantepe drawing n. 333-90)

3. Stemmed Bowls (Figure 5.6). These could have been used for food presentation and serving and communal consumption but their particular

features seem to suggest an additional meaning to their function. These objects could perhaps be associated with the consumption of ritual meals. Most of the fragments found so far are produced in red slipped ware (see next section) but some stemmed bowls were also identified among the handmade materials.

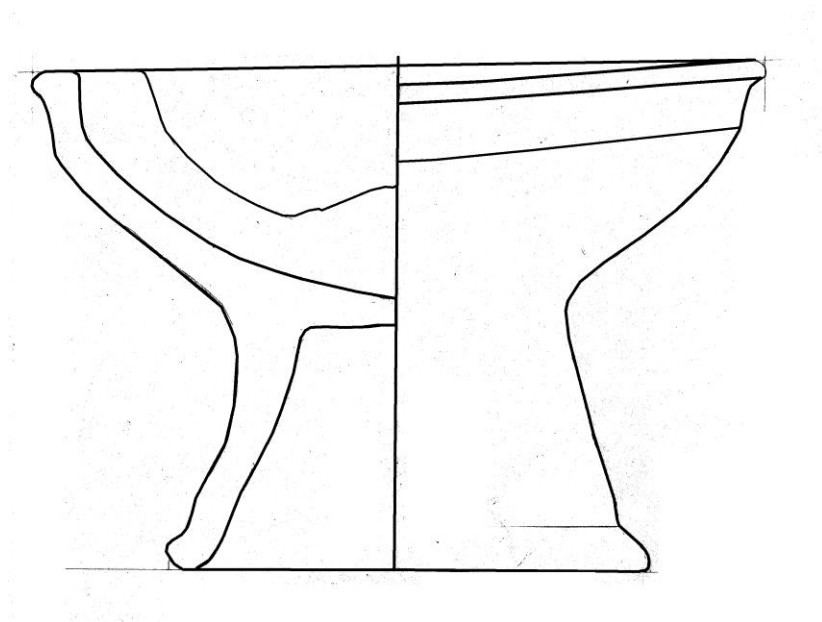


Figure 5.6 – Stemmed Bowls (Arslantepe drawing n. 376-98)

4. Basins (Figure 5.7) – very similar to the large bowls described above (2), they were unrestricted pots with conical or hemispherical profiles. These pots were distinguished by their very large dimensions with a capacity which ranges from 15 to 18 litres. The easy access into these vessels and their size enhances their suitability for food preparation for large groups (without heat) as well as food serving and communal consumption. These objects were mainly produced in the chaff-faced coarse ware and in some cases traces of the use of a rotating device are visible.

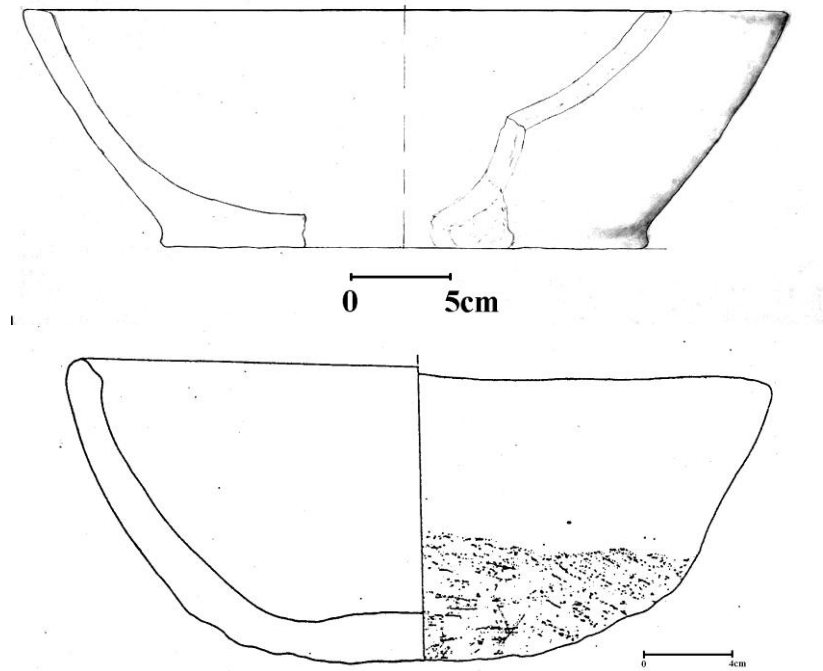


Figure 5.7 – Basins (Arslantepe drawing n. 91-99 (top), 387-90 (bottom)).

5. Funnels (Figure 5.8) – The functional attribution of these rare objects is due to the fact that they all have an ‘intentionally made’ hole in the middle of their base and a neck-like extension on the base itself. Apart from the example in the figure only one other ‘neck’ fragment was found. In another case a hemispheric basin with a purposefully made hole at the base was interpreted by the excavators as a funnel. These three objects were all made with chaff-faced coarse ware.

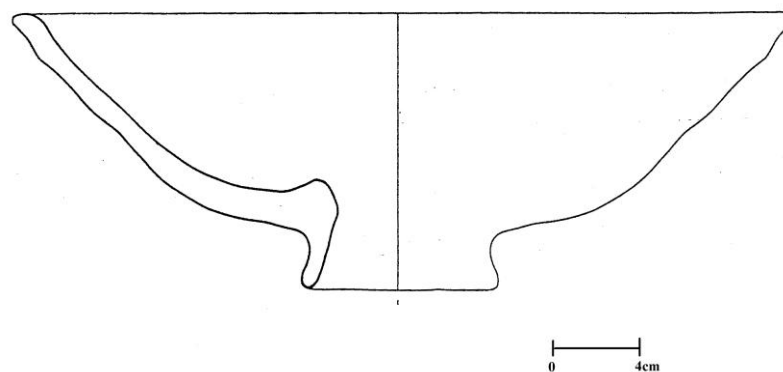


Figure 5.8 – Funnels (Arslantepe drawing n. 154-89)

6. Beakers (Figure 5.9) – small pots with a cylindrical body or carinated profile and flaring rims. The volumes of these pots range roughly from 0.20 to 0.40 litres. Even if the cylindrical objects technically had an unrestricted orifice their diameters are not wide enough to allow a human hand to enter. This traits as well as the carination of some of these pots enhance their ability to ‘protect’ their content. The dimensions and the morphological characteristics of these pots make them most suitable for the immediate, individual consumption of drinks. Along with the beakers it is worth mentioning a small group of very small cylindrical beakers (4-5cm high with 3cm rim diameter) that are indicated as **miniature beakers**. Cylindrical beakers were wheel made in chaff-faced coarse ware; the carinated ones were mainly produced with red slipped ware; but many beakers of both shapes were also produced in ‘handmade’ ware (again see next section for description of the wares).

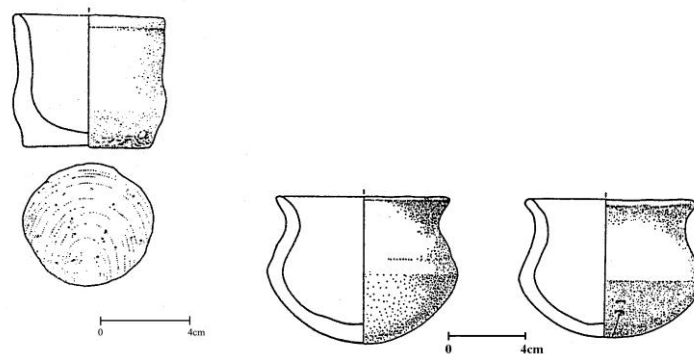


Figure 5.9 – Beakers (Trufelli 1993, Tables 9 ad 14).

7. Small Serving jars (Figure 5.10) – these small jars were distinguished functionally from the beakers because their orifice is generally more restricted and sometimes they have necks and out-flaring rims, these attributes tend to protect the content of the pots and facilitate actions like pouring. These pots were therefore considered more suitable for storing or serving limited amounts of liquids or semi-liquids. Traces of carbon deposit or sooting were never recorded in this group of jars suggesting that they were not used for cooking activities. They range in capacity from 0.3 to 1.5 litres. These jars were mainly produced with red slipped ware.

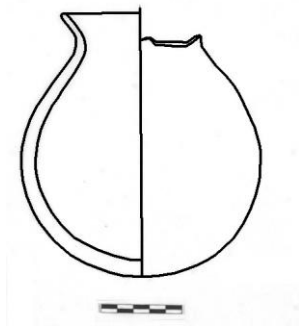


Figure 5.10 – Small serving jars (Arslantepe drawing n. 378-90).

8. Medium and Large serving jars (figure 5.11) –These pots have restricted orifices, a short neck and out-flaring rim, the body is generally ellipsoidal and the base is round. Access to these jars is restricted and the contents are protected by the necks. These characteristics (and the absence of any sooting on the sides of the vessel) suggest these jars were best suited for short term storage, consumption (as in pouring) and transport of liquids. The capacity of the medium jars ranges from 2.5 to 4.5 litres; that of the large jars ranges from 7 to 15 litres. These jars were produced both with red slipped and handmade wares.

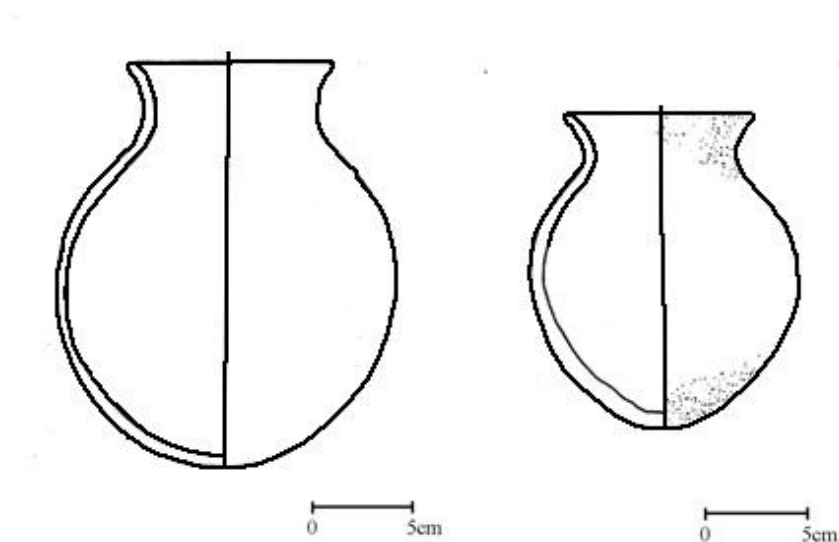


Figure 5.11 – Medium and large serving jars (Arslantepe drawing n. 161-89 (left) , 292-91 (right)).

9. Storage jars (Figure 5.12) – Jars in this category were grouped together due to their large size; their volumes ranged from 30 to 130 litres. Considering their dimensions it is likely that these jars were very heavy to

move when full; this and their shapes suggests that they were suitable for long-term storage of liquids or solids. Within the main category of storage jars it was possible to distinguish two main functional sub-groups on the basis of the physical characteristics of the pots and the treatment of their surfaces. The jars in the first of these sub-groups are characterised by restricted access, sometimes with a short vertical neck, the paste of these pots is usually very dense and the surfaces are always slipped and burnished over the slip. All this characteristics make the jars very suitable for the storage of liquid although the properties required for this purpose can vary according to weather conditions (Rye 1981, 26); the restricted access protects the content, the density of the paste and the treatment of the surface provide a better insulation and prevent evaporation (Rice 1987, 230-32). The jars in the second sub-group have a less restricted access, the paste is coarser and more porous than the pots in the previous group, the surfaces are simply smoothed and the walls are thicker (up to 2.5cm). The porosity of the paste, the rough treatment of the surfaces and the almost unrestricted orifices suggest that these jars were probably not meant for the storage of liquids but rather solids or semi-solid products. In the case of both groups the access of human hands or tools (such as ladles) would have been possible. It is also important to note that the capacity of the jars belonging to the first group ranges from 25 to 45 litres, whilst those belonging to the second group are concentrated in two clusters, one between 30 to 60 litres and the other between 80 and 130 litres. This offers an idea about how heavy some of these jars must have been when full.

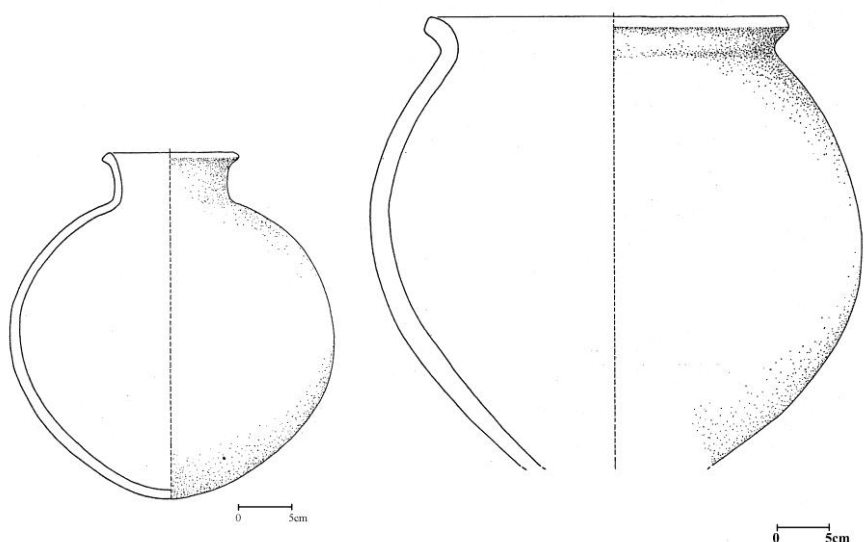


Figure 5.12 – Storage jars (Arslantepe drawing n. 300-91 (left), 299-91 (right)).

10. Cooking pots (Figure 5.13) – These jars had globular body with round bases and short out-flaring collars, the paste was mixed with frequent mineral temper along with the omnipresent organic temper; the paste was relatively porous and the surfaces were smoothed. Their capacity varies from 2 to 15 litres and clusters on two peaks around 3 and 10 litres. Although the orifice was restricted, it was large enough to allow access to human hands or tools. As discussed by Rye (1981, 27) thermal stress is reduced when the profile of a pot does not have sharp angles, and a certain degree of porosity can prevent the propagation of cracks. Based on these factors, I suggest that these vessels were more suitable than others to be used for food preparation over the fire as well as for serving and transport. A feature that is frequently found on fragments of these pots is the presence of sooting traces on their external surfaces concentrated towards the lower part of the body and on the external side of the rim; also traces of carbon deposit are frequently recorded on the internal surfaces. This evidence strongly suggests that these pots were regularly exposed to the action of fire and therefore used for cooking (see Skibo 1992, 147-171 and Kobayashi, 1994). Also consistent with this interpretation are the use-wear traces often found at the bottom of the internal surfaces of these pots, these traces were probably made by the stirring and mixing action performed during food preparation activities

(Skybo 1992, 106-110). This direct archaeological evidence, combined with their formal characteristics, confirms that these jars were probably used for food preparation over an open fire.

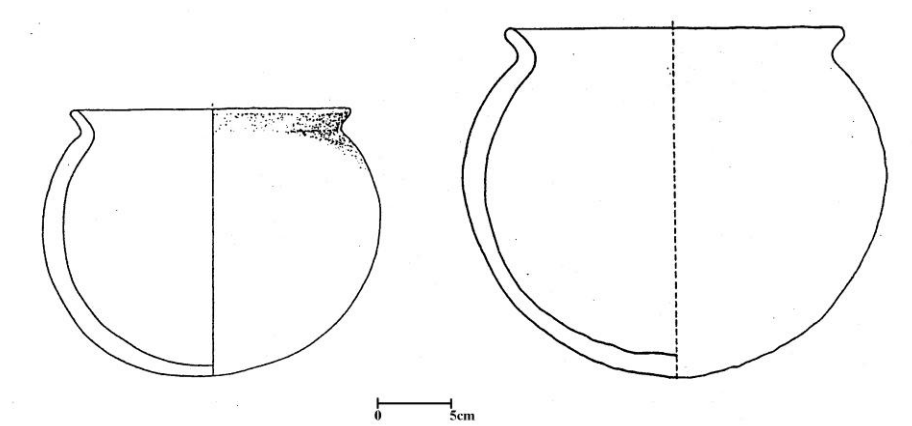


Figure 5.13 – Cooking pots (Arslantepe drawing n. 390-90 (left), 389-90 (right)).

5.4 Distinguishing production processes through the analysis of ware classes: the identification of two clear groups

Analysis on the provenance of the raw materials used for the production of Arslantepe VII pottery were carried out by a team of researchers from Rome University 'La Sapienza' and Rome's Centro Nazionale di Ricerca (Angle, Morbidelli and Palmieri 2001; Angle, Morbidelli and Palmieri 2002; Frangipane, Angle and Palmieri 1996) the results of these analysis confirmed that all the pottery from Arslantepe VII was produced with local clays. In line with the trend of most Chalcolithic ceramic production in the Near East (see Chapter 3, Section 3.3.5), all of Arslantepe's Period VII pottery has a high quantity of organic inclusions. The incidence of organic temper in Arslantepe ceramics is always considerable, whether mixed with sand, other mineral inclusions, or on its own.

The analysis of the manufacture technique determined an immediate demarcation between two main groups within the assemblage; the handmade materials are always characterised by highly irregular surfaces and profiles, and by thoroughly smoothed or burnished surfaces; on the contrary the pots produced with the help of a rotating device at any stage of the production (whether they were wheel-thrown or simply finished on the wheel) have more regular profiles and their surfaces are either roughly smoothed or slipped and burnished. The use of a rotating device is detected from several indicators; the clearest and most indisputable of these is the presence, at the bottom of some bowls and some beakers, of the marks left by the string by which the pots were removed from the turning surface (Figure 5.4), the so called 'string cut mark' (See Rye 1981, 75; Figures 63-64). In absence of the string cut marks other elements considered to detect the use of rotating devices were the relative regularity and symmetry of the pots' profiles and the presence of thin, parallel, horizontal and equidistant lines in both the inside and the outside surfaces of the pots. These lines are always present in pots with the string cut whilst they were never observed in handmade pottery at Arslantepe.

5.4.1 Handmade ware

The hand-made pottery is characterised by a coarse paste tempered with both mineral and organic inclusions. Apart from the fact that chunky organic inclusions seem to prevail in the bowls where mineral temper is almost absent, size and quantity of inclusions are highly variable and did not seem to follow a specific pattern of association with specific functional categories; the only generic trend recorded was an increase in size of both mineral and organic temper proportionally to the size of the pot itself. The pots are generally asymmetric and surfaces are uneven. The surfaces are always thoroughly smoothed and burnished. The main distinction detectable within this class is between dark and light wares. The dark ware pots range in colour from dark grey to dark brown to black. The light ware pots are generally pale orange-beige or reddish. The colour of the paste does not seem to be related to any particular shape or functional category. In terms of the technological choices made by the potters that manufactured these pots, this evidence seems to suggest that the selection of the clay sources was not controlled by particular manufacturing needs, rather, each potter was probably inclined to use their local clays adapting them with temper of different nature or size according to the dimension of the pots.

Handmade pottery in Arslantepe covered the whole range of functional categories described in the previous section of this chapter; pots produced with handmade ware included cooking pots with roughly S-shaped profile (which vary amply in size) large unrestricted mouths, everted rims and round bases (Figure 5.14). Ledges, knobs or spouts protruding from the rim are relatively common attributes of the handmade cooking pots but not frequent. Serving jars with restricted mouths and small necks also recurred in different sizes (Figure 5.15). Small beakers, large open bowls with simple rounded rims and stemmed bowls were also found. The only objects that were not recovered among the handmade assemblage were the funnels.



Figure 5.14 – Handmade cooking pots (Arslantepe drawing nos. pg 1414 (top left), pg 1415 (top right), pg 1112 (bottom left) and 1439 bottom right)). Photos by author 2009-10



Figure 5.15 – Handmade serving jars and a small bowl (Arslantepe drawing nos from left to right. 285-91, 302-98, pg 1171, pg 1451). Photos by author 2009-10

5.4.2 Wheel-thrown or wheel-finished wares

Among the group of vessels produced by the use of a rotating device more than one ware class was identified on the basis of the inclusions and surface treatment.

The **Chaff-faced, Coarse Ware** presents mainly vegetable inclusions, and although mineral inclusions are present, they are rare and consist of small (1-3mm) mica, quartzite or limestone fragments. Only in some cases is the presence of chunky (up to 10 mm in diameter), white limestone inclusions were recorded. The paste is relatively coarse and light in colour which ranges from creamy-pink through

beige to light grey. The observation of the sections of the fragments showed that the core is generally not oxidised. The surfaces of the pots produced in this ware are only smoothed. This class includes mainly simple conical bowls with a rim sloping towards the inside of the vase but small cylindrical or slightly carinated beakers were also present (Figure 5.16).



Figure 5.16 – Beakers and mass produced bowls (images from Arslantepe archive - Missione Italiana Archeologia Orientale)

The **Slipped and Burnished Ware** is, as above, characterised by the prevalence of organic inclusions, but unlike the previous group both the organic and the rare mineral inclusions are smaller allowing for a slightly finer ware. The paste is relatively fine, ranging in colour from light beige to pale grey, the inner core of the section is not entirely oxidised and has a characteristic grey colour. The main attribute of the pots in this class is their surface treatment, they are treated with a slip whose colour ranges (sometimes even within the same pot) from dark red to pale orange and often has evident burnishing strokes which can be more or less uniform on the pot's surface (Figure 5.17). The pots produced in slipped and burnished ware were mainly globular-ovoid jars with short neck, narrow mouth and sometimes high shoulders, probably used for short-term storage and consumption of liquids; and small carinated beakers with a squat body, large mouth and out-flaring rim that were presumably used for the consumption of drinks; other classes of objects produced with slipped ware were open conical bowls with a inward sloping rim, hemispherical bowls with thickened rim, carinated bowls and high stemmed bowls (Figure 5.17).



Figure 5.17 – Red Slipped and Burnished jars, bowls and beakers (images from Arslantepe archive - Missione Italiana Archeologia Orientale)

The Plain Smoothed ware is characterised, like the previous ones, by the prevalence of organic inclusions but the additional inclusion of mineral temper is more consistent and the inclusions are often large up to 5mm in diameter. The Plain Smoothed Ware is characterised by the smoothed surface of the pots, the colour range from beige to grey whilst the core of the pots is invariably not oxidised and ranges in colour from dark grey to black. In most of the cases, where large parts of the body were preserved as well as the rim, it was possible to observe that the necks or the rims were shaped or finished with the help of a rotating device whilst the rest of the body was probably hand shaped. Pots produced with plain smoothed ware mainly consist of large storage jars with large mouth, no neck and thickened rims (Figure 5.18).

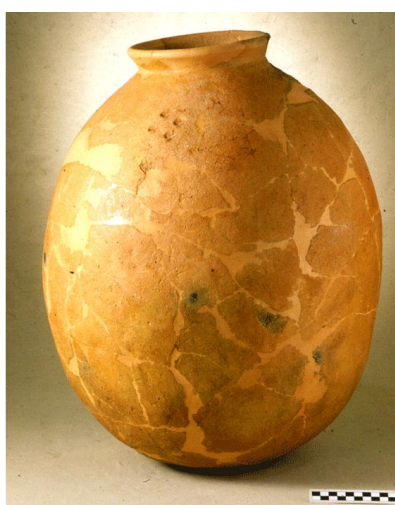


Figure 5.18 – Plain Smoothed Ware storage jar (Archive photo, Arslantepe drawing n. 287-91)

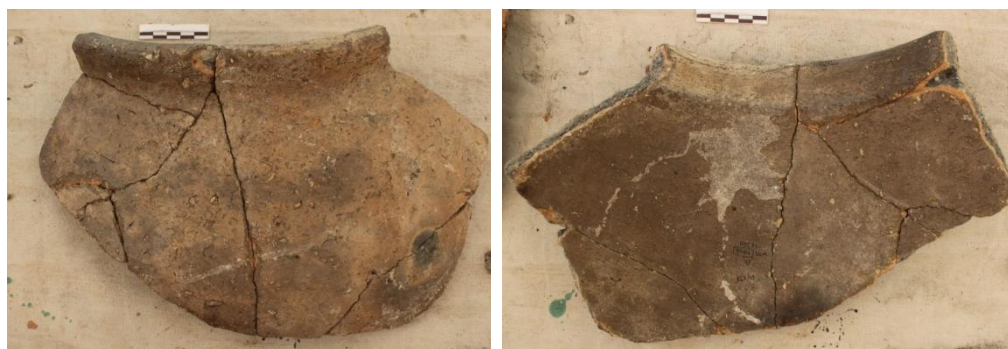
As mentioned above the ceramic classes with prevalence of organic temper make up the majority of the ceramic assemblage from Arslantepe VII levels. However, wares with higher incidence of mineral temper are also present in these levels. The **Kitchen Ware** is the most common of the classes with mixed temper. Characterised by a sandy paste, its organic inclusions are generally finer than those in the chaff tempered wares, mineral inclusions, small to medium in size (1 to 5mm in diameter), are sometimes as frequent as the organic ones. The surfaces of the pots in this class are normally roughly smoothed on the external side and untreated on the inside. Their colours range, often within the same pot, from orange-buff to dark reddish-brown. The pots made with this ware are quite consistent in size and shape; they are globular jars with relatively large mouths, very short or absent necks and out-flaring rims (Figure 5.19). These pots were probably shaped by hand for most of the body, but the necks and the rims were most likely shaped or at least finished with the use of a rotating device as appears to be evidenced by the many horizontal parallel lines visible underneath the rim on the inside of the pots. The use of these vessels for food elaboration and cooking is suggested by the frequent presence of carbon deposits on the internal surfaces and sooting on the external surfaces as well as by the lines of use wear on the internal surfaces, particularly near the bottom of the vase, probably produced by consistent stirring action.



Figure 5.19 – Kitchen Ware, cooking pot (Arslantepe drawing n. 390-90). Photo by author 2009

Finally, most of the large jars used for long-term storage were made with a **Coarse Mixed Temper Ware**, characterised by a sandy very granulose paste that contained a large quantity of both organic and mineral temper. The mineral inclusions are quite large, reaching 1cm diameter in some cases. The surfaces were normally untreated, rarely smoothed or burnished, with a surface colour ranging

from beige-buff to reddish-brown to grey and dark grey. The walls of these pots are very thick and generally the core of their walls is non-oxidised (Figure 5.20).



**Figure 5.20 - Coarse mixed temper ware, large storage jar (Arslantepe drawing n. 342-05).
Photos by author 2010**

5.4.3 Matching ware classes to functional categories (Table 5.1)

As noted above in the description of the different ware classes there seem to have been a direct relationship between the production of vessels with particular shapes and functions and the application of different manufacture techniques as well as the selection of the raw material used.

It is possible to divide the bowls into at least three groups: the vast majority of them consisted of the mass-produced conical bowls made in the Chaff Coarse Ware, in very large quantities. The second group is formed of relatively rarer items produced with red Slipped and Burnished Ware these included simple conical bowls or bowls with carination in the middle of the walls and/or thickened rims. The third group consists of the handmade burnished bowls, hemispherical in profile; they are rarely found but seem to be present across the whole period.

The beakers as well as the bowls were made with Chaff Coarse Ware, Slipped and Burnished Ware and Handmade Ware. The ones produced with Chaff Coarse Ware were mainly cylindrical or with slightly S-shaped profiles and often had string cut marks at the bottom. Pots produced with red or orange Slipped and Burnished Ware were the most common group of beakers, they always had an S-shaped

profile with a more or less marked carination. Handmade beakers with burnished surfaces were also present; their shapes varied from cylindrical to S-shaped profile.

Both the basins and the large bowls were produced with Chaff Coarse Ware, Slipped and Burnished Ware and Handmade Ware.

The majority of the serving jars were produced with red or orange Slipped and Burnished Ware. Few items belonging to this functional category were produced with Handmade Ware.

Among the storage jars, the ones belonging to the first of the two groups described above, with restricted access, were produced with Slipped and Burnished Ware whilst most of the jars with unrestricted access were made with Plain Smoothed Ware, Coarse Mixed Temper Ware and Handmade Ware.

Finally the cooking pots were made with both Kitchen Ware and Handmade Ware. Few fragments of restricted jars made with Slipped and Burnished Ware with a thick layer of carbon deposit on the internal walls (which could suggest that they were used for food preparation) were recorded but the small dimension of the fragments does not allow us to reconstruct their actual shape and place them within any specific functional category.

In the following section I will consider in detail those elements that might reflect aspect of the social organisation offering an insight into the organisation of the ceramic production and the uses of pottery at Arslantepe during Period VII.

	Small Bowls	Medium and Large Bowls	Stemmed Bowls	Basins	Funnel	Beakers	Small Serving Jars	Medium and Large Serving Jars	Storage Jars	Cooking pots
Handmade Ware	X	X	X	X		X	X	X	X	X
Chaff Faced Coarse Ware	X	X		X	X	X				
Slipped and Burnished Ware	X	X	X	X		X	X	X	x	X
Plain Smoothed Ware									X	
Cooking Ware										X
Mixed Coarse Ware									X	

Table 5.1 - Relations between ware classes and functional categories

5.5 Mass-produced bowls: a key indicator of public social practices

The most common items of Arslantepe VII ceramic assemblage are the mass-produced bowls. These can shed light on the degree of complexity involved in the organisation of ceramic production and allow a better insight into the organisation of Arslantepe Chalcolithic society. As possible indicators of social organisation, the bowls and their manufacture characteristics will be examined in some detail in the following paragraphs, while their distribution within the different contexts will be considered in the following chapter.

The term ‘mass production’, which is largely used in the context of intensive ceramic production in 4th millennium BC Mesopotamia, is also here used according to the idea, articulated by Rice, that “*craft products made by intensive specialists are mass-produced (for the sake of economic effectiveness)*” (Rice 1991, 268).

As discussed in Chapter 3, in Mesopotamia towards the end of the 5th and, more consistently, during the 4th millennium BC a shift from the prevalence of fine decorated pottery (characteristic of Halaf and Ubaid ceramic production) towards the widespread production of undecorated, chaff tempered pottery is recorded. This trend, which seems to reflect a change in the social uses of the ceramic artefacts (Frangipane 1993) and consequently in the production techniques, culminated with the extensive production of the so-called ‘mass-produced’ bowls (Frangipane 1993; Frangipane 1997). Here I use this term generically to indicate all simple coarse bowls, although across Mesopotamia throughout the 4th millennium BC different kind of bowls were produced that could have fitted within this category and that probably served similar purposes. Mass-produced bowls were always characterised by similar technological elements: the paste is often very coarse and chaff tempered, the surfaces are roughly treated, and the pots are hastily fired. These manufacture elements seem to reflect the need for the rapid production of many bowls in the shortest amount of time; their appearance suggests that the final quality of the product was probably less important than the quantity made and the time in which they were produced. Coarse simple bowls were first recorded at the

site of Coba Huyuk (south-eastern Anatolia) in the Ubaid deposits of the site (du Plat Taylor, Williams and Waechter 1950). Coba style bowls were then found very frequently in the late 5th and early 4th millennia BC deposits in other sites in south-eastern Anatolia such as Mersin-Yumuktepe, (Garstang 1953, 174; Caneva et al. 2012); in the late Ubaid deposits of Norşuntepe (Hauptmann 1982) in the Keban area and also in the Amuq area (Braidwood and Braidwood 1960). The Coba bowls were roughly hemispherical with simple plain rim; the paste was coarse and the temper was mainly organic.

The most widespread type of mass-produced bowl across Mesopotamia is the so-called Bevelled Rim Bowl. These were roughly shaped, probably in moulds; the sub-conical profile was always irregular; the chaff tempered paste very coarse and hastily fired. Fragments of the characteristic rims are found in enormous quantities in most Mesopotamian contexts attributed to the Uruk periods. These bowls were often found in their hundreds associated with monumental/ceremonial contexts or discarded, often unbroken, in nearby areas.

In Arslantepe as well as in other sites of northern Mesopotamia (Whallon 1969) the conical bowls were relatively more regular and standardised, had smoothed surfaces and were probably shaped using some kind of rotating device, as demonstrated by the frequent presence of string cut marks at the base of the pots; their surfaces were always smoothed albeit only roughly at times.

The implication of the appearance of the mass-produced bowls, their consistent presence in 4th millennium BC Mesopotamian sites, their quantities and concentration and particularly their function and use have been widely discussed by Near Eastern archaeologists (Beale 1978; Blackman, Stein and Vandiver 1993; Gelb 1965; Johnson 1973; Jones 1996; Millard 1988; Nicholas 1987; Pollock 2003). Some scholars suggested that they were used as offering or presentation bowls in a ritualised taxation system (Beale 1978: 289-313; Nicholas 1987: 61-72); some others that they were used as ration bowls during redistribution practices (Gelb 1965: 230-243; Johnson 1973: 137; Nissen 1970: 101-191); and others also suggested that they might have been used as bread moulds (Millard 1988: 49-57; Chazan, Lehner 1990:

21-35; Goulder 2010: 351-363). Obviously all these hypotheses are based on valid arguments but none excludes the others. The bowls might have been used in different ways in different contexts or moments; what is most important is that all the archaeologists have agreed that these bowls are somehow related to a new economic system and a new social organisation which implied the existence of a central authority able to monopolise resources (whether gaining them through the taxation system or in order to redistribute them), dealing with and providing for large numbers of people. For the purpose of the present chapter this is particularly interesting as it suggests a social significance for the presence of mass-produced bowls in a site like Arslantepe. In the following section and chapter I will discuss the contexts in which the bowls were found and their distribution patterns which is essential in order to attempt an interpretation of the way these bowls were used at Arslantepe. For the time being I will concentrate on the characteristics related to the manufacture and production techniques of the bowls and therefore the social organisation where this production took place.

5.5.1 Types, chronology or manufacture?

The mass-produced bowls from Arslantepe VII are all made with chaff coarse ware, their surfaces are smoothed, often the core of their walls is not entirely oxidised, especially towards the base which is always significantly thicker than the rest of the body. The rim is not bevelled but slopes inwards and often has a small internal ledge (Figure 5.21).

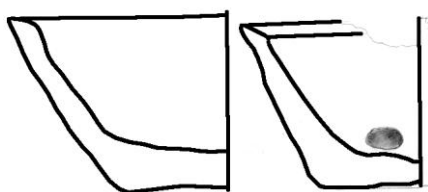


Figure 5.21 – Bowl rims

Although these bowls all look very similar, there is a high rate of stylistic variability which seems to indicate that controlling the formal appearance of their production was not in the potters' agenda. For this reason a stylistic typology of the bowls is extremely difficult as well as potentially useless. But in order to sort out

these bowls, it was noted that the main differences among them were to be found in their technological characteristics.

On the basis of the manufacture techniques three different varieties of bowls were distinguished. These included the bowls with marks of flint scraping (Figure 5.22) applied on the external walls around the base to regularise the external walls of the bowls after they had been shaped; those with marks of string cut (Figures 5.23 and 5.4) at the bottom and those with simple flat base.

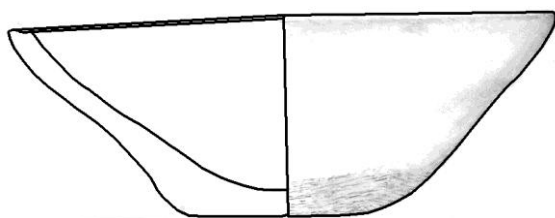


Figure 5.22 – Flint scraped bowls

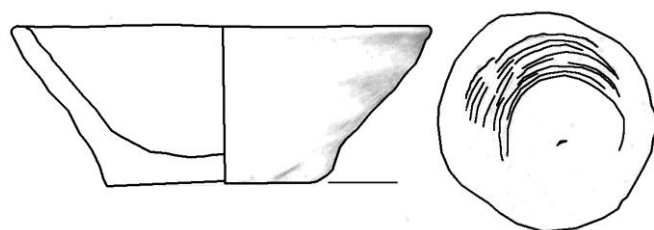


Figure 5.23 – Bowls with string cut mark

Although these three types were often found together in the same contexts suggesting their contemporaneity, the flint scraped bowls seem to prevail in the earlier phases while towards the end of Period VII the bowls with string cut, only appears during the latest phases of Period VII and tend to outnumber the other types. The bowls with a simple flat base are generally rarer than the others and are scattered across the different phases without a specific pattern.

The different incidence of the two main groups (with flint scraping and with string cut) across the sequence could suggest that different techniques were applied by Arslantepe potters at different times, namely that the regularisation of the profile by scraping preceded the use of the wheel (indicated by the cut mark at the bottom of the bowls). But the discovery of five bowls with both string cut marks and flint

scraping signs seems to account for the fact that the scraping was also applied in order to regularise the profiles of some bowls produced on the wheel. These changes noticed in the production of bowls across time could be somehow related to the intensification of production. Following the ethnographic research by Longacre, Kobajasky and Kvamme (1988) on the pottery produced by the Kalinga people in the Philippines, in which the researchers identified a direct relationship between standardisation of the pottery production and specialisation of the potters, we could reasonably imagine that at the time of the introduction of the first rotating devices (slow wheel or *tournette*) the need for regularisation of the external walls was higher as the skill of throwing vessels using the rotating tool was not refined yet and the bowls were scraped thoroughly (maybe in this process the string cut marks were erased as well). But towards the end of Period VII the demand for large numbers of bowls increased and the production intensified, probably this reduced the 'aesthetic' need for regularising the sides of the bowls on one hand, and, on the other hand, in a context of more skilled craftsmen/women the use of the wheel was established and made the flint scraping redundant but for some rare cases.

After the excavation on the latest phases dated to Period VII like the complex with the long rooms (see following chapter) it became clear that, at the very end of Period VII sequence, another change occurred in the production of the bowls, their size reduced and the rims became thinner and flatter, to the point that it is almost possible to follow an 'evolutionary' process from Period VII traditional bowls (with the inwards sloping rim) to the thin rounded rims of Period VIA mass-produced bowls. At the other end of the scale, the bowls retrieved from the excavation of some very early contexts of Period VII (excavation seasons 2006-2007) are almost hemispherical and the bases are round which is reminiscent of the hemispherical shapes of the Coba bowls and suggests an entirely handmade production.

5.5.2 Distribution of the bowls and their function at Arslantepe VII

The distribution of the mass-produced bowls will be discussed in greater detail in the following chapter, but what we need to anticipate here is that, although the bowls were found in almost all of Period VII contexts excavated to date, the great

majority of them were concentrated in two monumental buildings and were often associated with administrative materials. This evidence is in line with the idea that the bowls were part of a system where large numbers of people were involved in ceremonial commensality. These events were hosted by segments of the community that must have been able to monopolise large resources. One of the interpretations proposed for the function of these bowls is that they might have been used to distribute rations of food or drink to dependent or semi-dependent workers (Johnson 1973, 137; Nissen 1970, 101-191). This idea is partly suggested due to some of the ideograms of the earliest tablets dating to the late Uruk period, Late 4th millennium BC, that seem to record the distribution of food rations. In these archaic texts the symbol used for ration is a conical bowl (Englund 1998, 178-179).

In the case of Arslantepe the hypothesis that the mass-produced bowls were used for food rations seems to be supported by several elements such as the monumental context where many of the bowls were concentrated, their association with administrative materials such as clay sealings and large storage jars and finally the fact that their volumes, charted in a histogram (Figure 5.24), were found clustering around two different dimensional classes (for further details on methodology and sampling criteria see Guarino 2008), could be in fit the idea that the rations distributed were diversified possibly according to the gender, age, social status and type of work of the workers (Gelb 1965: 232, Johnson 1973: 86, Frangipane 1989: 52). The volumes of all mass-produced bowls from Building XXIX were initially plotted using various numbers of bins (from 30mls units to 200mls units). In all cases the two clusters shown in the histogram below were visible but with varying intensity. Therefore it was decided to use the histogram with 50mls units because it appeared to offer the best representation of the two dimensional classes showed by all the histograms.

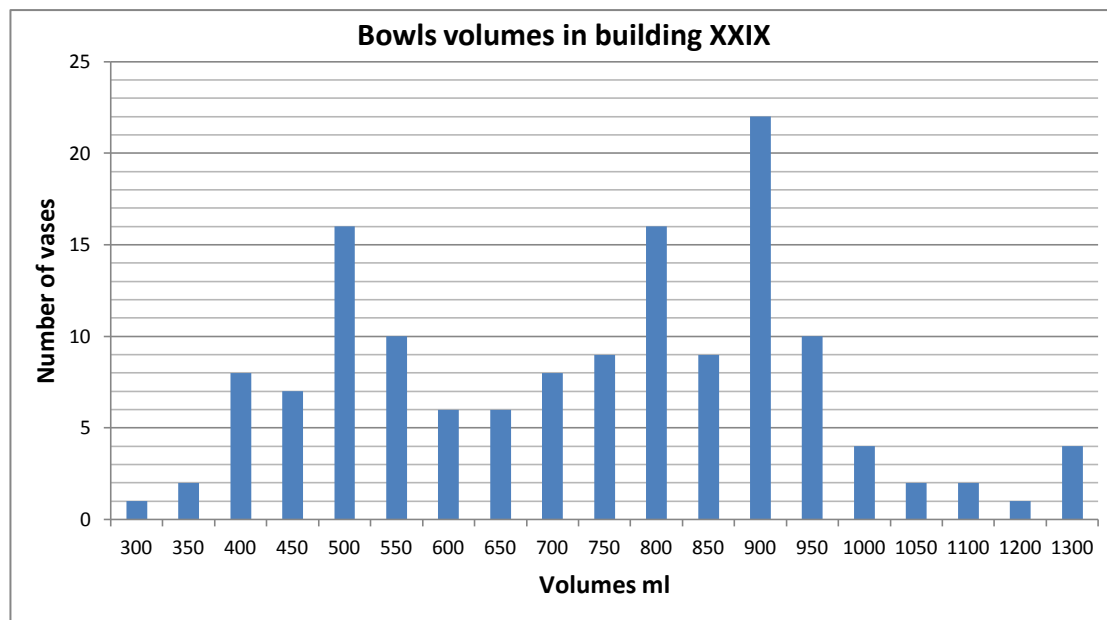


Figure 5.24 – Volumes (in millilitres) of mass-produced bowls from Building XXIX

If we are inclined to accept the hypothesis that mass-produced bowls were used within the context of a ration-distribution system we are implicitly accepting the existence of a particular segment of the society, a chief or a central institution of some description that were able to mobilise large quantity of staple finance, monopolise work force, and redistribute its wealth in the form of food or rations in return for labour. This raises the question of whether this chief or institutional authority commissioned the production of the bowls and how the acquisition of these was justified.

5.6 Potters marks: insight into potters' workshops

Among the elements that characterise Arslantepe VII pottery are the so called potters' marks (Palmieri 1985; Trufelli 1994). These are simple lines and dots impressed on the pots before firing. Their presence at Arslantepe and in other 4th millennium BC northern Mesopotamian sites such as Tell Brak (Oates and Oates 1993, 172-4) and Tell al Judaïda in the Amuq region (Braidwood and Braidwood 1960, 236-7) has stimulated interesting hypothesis on their function and their implication on the organisation of the pottery production in this area of the Near East.

5.6.1 The ethnographic evidence

Potters' marks may have different functions, they could have been used to identify a potter, a workshop or the purchaser, but they could also have some relation to the capacity of the vessels or their contents. In the ethnographic record potters' marks appear to be used often with the simple intention of identifying the products of different potters who share a communal drying or storing area, or fire their pots together. Similar use of the marks was noted by Gallay writing about contemporary Mali potters (Gallay 1970) and Donnan observing Peruvian potters (Donnan 1971). Gallay recorded that when different workshops used communal areas for drying or firing the pots they needed to mark their products in order to recognise them at the end of the manufacture process (Gallay 1970, 62-67). Given the significant distance between Mali and Peru it is interesting to see the similarities in the way potters' marks were used in the two areas; Donnan writes that occasionally different potters used communal firing areas in order to maximise the fuel or used the same sheds to store their pots before selling them and these circumstances created a need to mark the pots; interestingly Donnan also stresses the fact that the marks did not have any intrinsic meaning for the potters, a particular sign was not representative of one specific potter (like a signature) outside of the production context, but was merely functional to the immediate recognition of one's product (Donnan 1971, 465). A similar use of the potters' marks is also recorded by Bill Sillar in his account for the organisation of pottery production in the Peruvian and Bolivian Andes. Sillar remarks that marks are used

when households use communal firing areas as well as when itinerant potters join forces and work together or else, for instance, in the contexts of households specialised in pottery production, young couples mark their pots in order to differentiate them from their parents if they are still living in the parental home (Sillar 2000, 73-74). Interestingly none of these ethnographical accounts recorded the use of marks other than to distinguish pots made by different potters for commercial purposes.

5.6.2 Potters' marks at Arslantepe VII

As mentioned above, potters' marks on Arslantepe VII pottery consisted of lines and dots, arranged in numerous combinations (Figure 5.26). They were impressed on different parts of the pots' surface according to their shapes. In the case of restricted pots such as serving jars, storage jars or cooking pots the marks were always impressed on the external surface, on the shoulder of the larger pots or towards the base in the small serving jars; pots with carination like the beakers or carinated bowls were always marked below the carination; in the case of the mass-produced bowls the marks were applied either internally or externally, most of the times on the lower part of the body. All bowls with flint scraping signs on the external walls had the marks impressed on the scraped area and therefore after the scraping. Whilst on the pots that were slipped and burnished the marks were always partially obliterated by the final surface treatment. As regards the possible function of these marks, Palmieri suggested that they were applied by potters using communal open firing areas, in order to allow the potters to recognise the pots after they were fired (Palmieri 1985, 194). This interpretation, which was embraced also by Trufelli (1994) and Frangipane (1993), is supported the previously mentioned ethnographical analogies.

Working on more than 300 marked sherds Trufelli identified 34 different combinations between lines and dots (Trufelli 1994, 257, Figure 5 and here Figure 5.25).

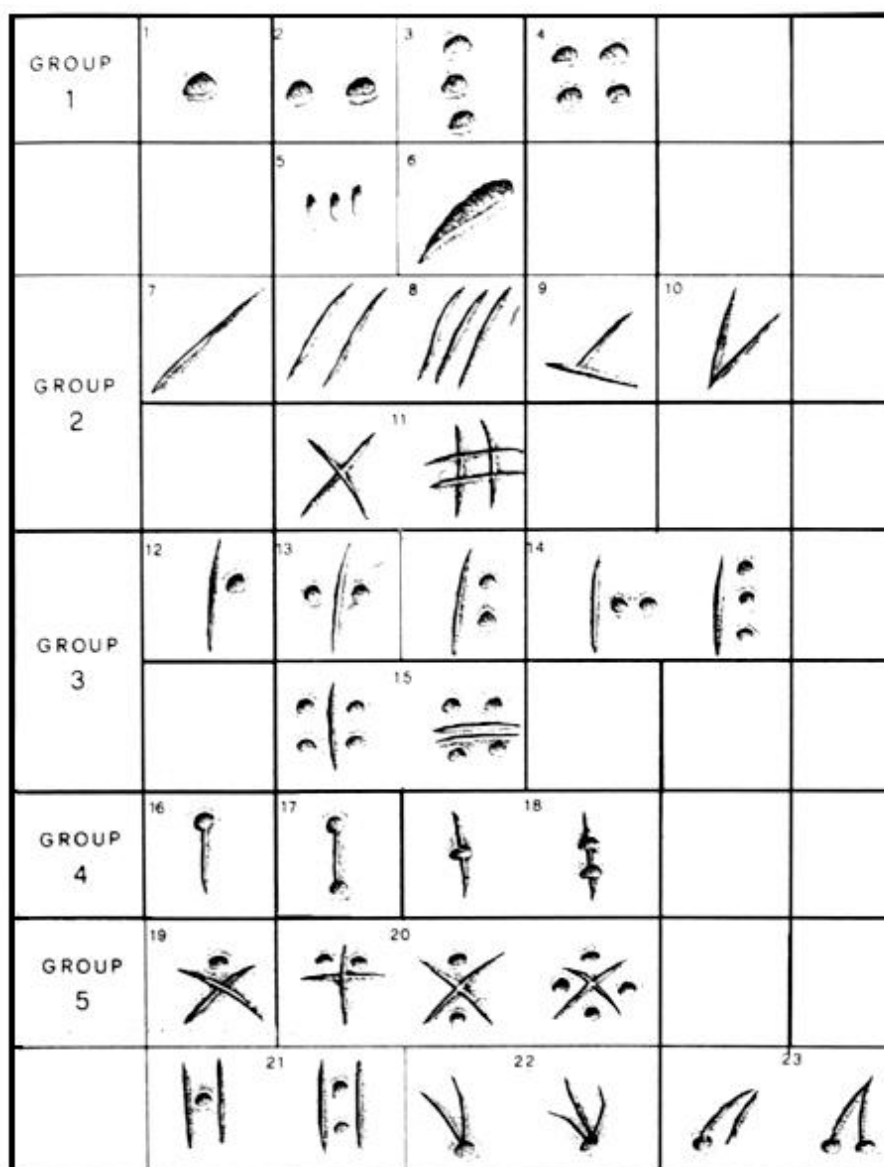


Figure 5.25 - Trufelli's grouping of impressed marks on the pottery from Arslantepe VII (after Trufelli 1994, 257 Figure 5)

In order to verify the hypothesis suggested by Palmieri, Trufelli analysed the distribution of the marks across time and space and their association with particular forms or wares. She found that the marks' presence seems to increase with time during Period VII; they were principally used on the Chaff Coarse Ware² and consequently on the mass-produced bowls (*ibid* 258-262). Trufelli noticed that there was no apparent relation between specific marks and particular functional

² In her article Trufelli uses the acronyms 'TGC', which corresponds to Chaff Coarse Ware in the present work; 'TLC' which includes the Plain Smoothed Ware and the Slipped and Burnished Ware of my classification; and 'CT' that is the equivalent of 'my' Kitchen Ware.

classes which rules out two hypothesis, first that some potters were specialised in producing specific items and second that the marks were somehow related to the content or the capacity of the pots; also the archaeological evidence shows that most marks are found both in the early phases of the sequence of Period VII as well as towards the end (*ibid* 268-7) confirms that the various marks we found were used during the whole sequence of Period VII.

Reviewing Trufelli's work and analysing the materials from more recent excavation seasons I was able to find circa 200 more marked pots and fragments among those found in the new contexts (excavated after 1994) and identified six further sign combinations (Figure 5.26).



Figure 5.26 – Further potters' marks identified during the analysis for this thesis

The general trends identified by Trufelli were largely confirmed by the analysis of the newly found marks. As shown by the following charts (Figure 5.27), marks were present in all kind of pots. Including some marks found on pottery types Trufelli previously indicated did not have marks (*ibid* Figures 12-14). Admittedly only in one case was a mark found on a fragment of carinated bowl, but in the case of the serving jars (both large and small) the presence of marks is recorded in several cases.

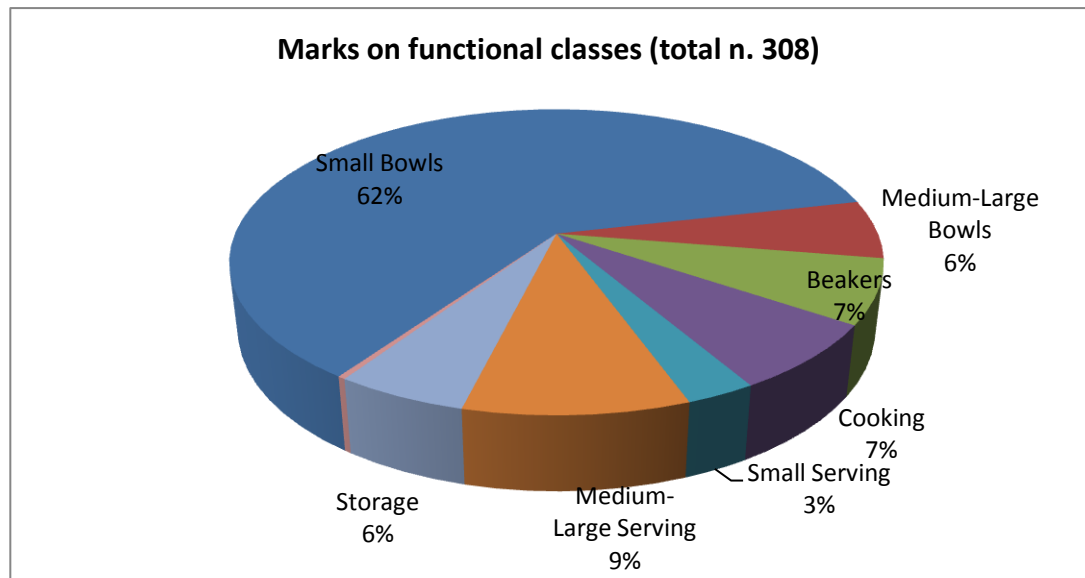


Figure 5.27 – Potters’ marks found on pottery classified by the functional class

The following chart (Figure 5.28) shows the distribution of the potters’ marks on the different ceramic ware classes. One thing that Trufelli did not remark upon was the clear cut demarcation between the two main ceramic groups discussed earlier, the handmade and wheel-thrown wares. The potter marks were mainly found on wheel-thrown or wheel-finished pots, virtually never on the handmade pots (one handmade bowl with a potter mark on the base was found in 2010 – drawing number; 323-98). It was probably due to the fact that handmade pottery was not marked that Trufelli did not mention it and left it out of her analyses. Conversely I am under the impression that this separation between two ceramic groups that are already significantly different is crucial in understanding the dimensions of the specialisation of the potters and the ways production was organised and managed at different scales and within different work environments.

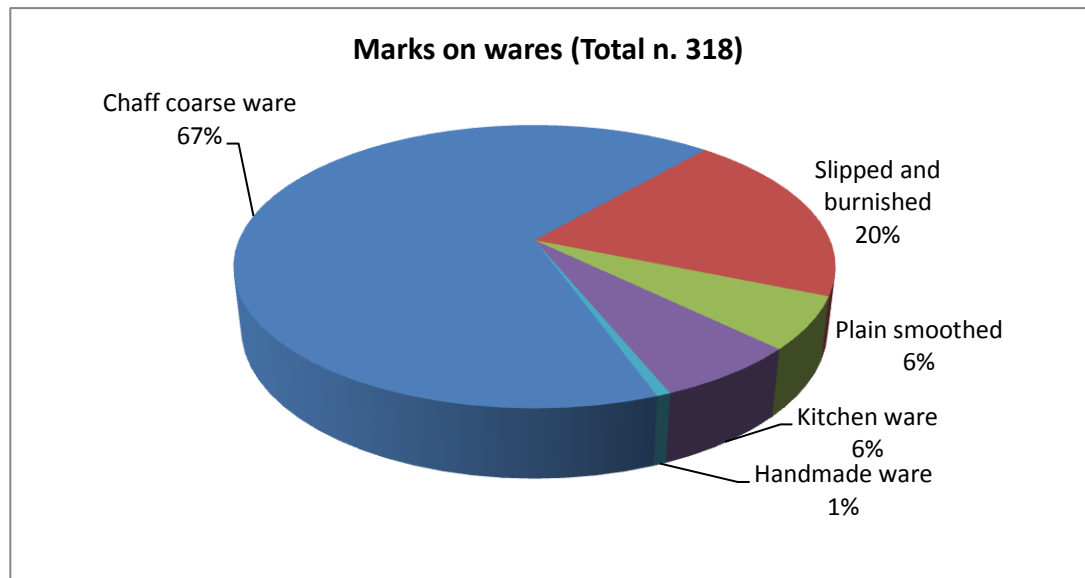


Figure 5.28 – Distribution of potters' marks through the different ceramic wares

If the observations on the manufacture techniques of the two groups already suggest the coexistence of distinct production processes, it seems to be confirmed by the fact that marks were only used on one of the two groups. Possibly one of these production processes was internal to distinct economic spheres, such as a family or a household producing at least some of their own pots; the other involved the partial collaboration of potters which were producing on a larger scale and in a manner that needed their pots to be marked. Although we cannot be sure about the actual function that these marks had at Arslantepe in the 4th millennium BC, it seems clear that they represent a way for the potters to communicate some kind of information related to the pottery; the nature of this information, as well as its recipient, remains to be understood. As we already mentioned the presence of the same marks on different kind of pots rules out that this information had anything to do with the capacity or the content of the pots. Palmieri's idea that the marks were used to distinguish the products of different potters is supported by several ethnographic examples and is not contradicted by the archaeological evidence. This hypothesis would also match with the fact that of the two main ceramic groups the one that received the marks was the one that shows a higher degree of standardisation, higher labour investment and presumably a certain degree of specialisation of the potters, resulting in pots that would be more difficult to distinguish without the aid of an identification mark. It is not a coincidence then

that the highest concentration of potters' marks is found on the mass-produced conical bowls at the end of Period VII, presumably when, due to the new redistributive activities carried out in the ceremonial building of the settlement (see next chapters for more detailed discussion), the intensification of the production of these pots might have increased the frequency with which the marks were used.

One objection I have against this interpretation is the longevity of the marks. As mentioned earlier most of them are recorded across the whole sequence; if each mark represented some kind of signature for a potter or a workshop we should, as a consequence, accept firstly the idea that there were up to 40 potters or workshops acting roughly at the same time and serving the relatively small centre of Arslantepe; and secondly that the marks/signatures were kept alive for as long as four hundred years. I find it difficult to believe this was the case. These doubts could be countered with the argument that the marks were not a signature representative of a specific potter or workshop but rather random signs that, as Donnan reported for his case study (Donnan 1971), had no specific significance to the potters who might have used different marks on different occasions. Although this argument with its direct ethnographical backing should be enough to explain the longevity of the signs and their quantity, I am still tempted to believe that the complexity of some of the combinations of lines and dots can only be explained if these combinations had an intrinsic meaning, readable and understandable at least by the people involved in the production process. One possibility is that the marks might have been part of a numeric system.

Far from being able to decipher this system I do not have any argument in support of this hypothesis if not the fact that I personally find it easy to imagine that the dots and the lines could represent digits and base changers (depending on whether this was a decimal (such as the one used by the Hittites), sexagesimal (used by Sumerians and Assyrians) or an alternative numerical system) and that their combinations would form numbers. Trying to reconstruct how the marks were used we could imagine that in a context where many potters were working together the marks might have been applied by someone responsible for recording the number of pots produced in one day or week. This mark would only need to be put on the

final pot in the line of drying vessels, which would explain why only a small proportion of the overall assemblage has marks on it. For the time being this working hypothesis remains unexplored and more analysis would be needed in order to define the possibility that these marks belong to a numeric system or not, let alone to 'decipher' the system if any. A similar hypothesis was put forward by Encreve and Dollfus regarding some marks found on 5th millennium pottery from the Susiana region (Encreve and Dollfus 1982). The authors suggested that the signs were partly numeric and partly figurative and most importantly she thinks that they could have been the prototypes for the proto-elamite writing that developed in the area quite a few centuries later; in her words *"ces marques incisees du V millenaire sont des prodromes lointains mais identifiable de l'écriture"* (Encreve and Dollfus 1982, 114).

Whatever the exact function of these marks at Arslantepe, the interesting thing is that their use was recorded only in Period VII; they were not yet used during Period VIII and disappeared in Period VIA. The ceramic assemblage of Period VIII included mainly handmade pots and does not show any evidence of specialised or intensive production. On the contrary, at the other end of the range, Arslantepe VIA ceramics show a high degree of specialisation, and the mass production of conical bowl carried on. Despite this evidence the potters' marks disappeared. This is probably explained with the idea that the pottery was now produced in a centralised system and the workshops were probably attached to a central institution that controlled the production process more directly. This working environment in which every step of the production process would be facilitated by the central authority would make the use of the marks unnecessary whether they were used by potters to recognise their own products or if they were numbers to record daily output.

As mentioned at the beginning of this section very similar marks to the ones found at Arslantepe were also found in other Chalcolithic Mesopotamian sites such as Tell Brak and Tell al Judaïda in the Amuq region (respectively Oates and Oates 1993 and Braidwood and Braidwood 1960). Although in the case of the Amuq F pottery the authors interpret the marks as decorative elements (Braidwood and Braidwood 1960, 237, Figures 176-177) they were very similar to some of those

found at Arslantepe and I would have no doubt in considering them as potters' marks. On a different note, the marks found at Tell Brak have been interpreted as indicators of the volumes or the contents of the pots because there was a consistent association between sizes of pots and type of marks (Oates and Oates 1993, 173). It is significant that the appearance of the potters' marks at these other sites coincides chronologically with their appearance during Arslantepe VII. Also the ceramic assemblages of Arslantepe VII, Amuq F and of Tell Brak TW16 share similar characteristics such as the high prevalence of organic tempered pottery and the appearance of wheel-thrown objects and mass-produced bowls. A discussion on the comparisons between Arslantepe and other contemporary Mesopotamian sites is provided in Chapter 7.

5.7 Morphological variability and craft specialisation

In this section I present and discuss the results of my analysis of morphological variability within the pots from Arslantepe VII in order to investigate the ways their production was organised.

As remarked earlier in this chapter, on the basis of the examination of the manufacture techniques, surface treatments and the distribution of potters' marks, I suggested that the two main ceramic groups (handmade and wheel-thrown) present at Arslantepe VII were produced in different work environments. Namely that higher labour investment and skills, required for wheel-thrown pots (which showed more regular profiles, slipped surfaces, complex rims and potters' marks) when compared with handmade pots (characterised by coarser wares, irregular profiles and surfaces) would seem to suggest that the first group was produced within ceramic workshops by relatively specialised potters who presumably responded to a demand for a certain degree of standardisation. On the other hand the handmade pottery might have been produced within a domestic context for internal use only and therefore without particular restraints on shapes or colour of the products.

In order to provide further support to this hypothesis I tried to quantify the degree of standardisation of these two Arslantepe VII ceramic groups (wheel-thrown and handmade) using the analysis of morphological variability as previously applied by several scholars who have worked on the issues of standardisation and craft specialisation during the 80s and 90s (e.g. Blackman et al. 1993; Costin 1991; Costin and Hugstrum 1995; Feinman et al. 1984; Longacre 1988; 1999; Rice 1991; Roux 2003; Sinopoli 1988).

5.7.1 The standardisation hypothesis: the theoretical and methodological background

The main argument of these scholars was based on the fact that appearance of specialised crafts in prehistoric communities seemed to be connected with the increased complexity of their economic organisation. A community can afford to maintain specialists carrying out activities that are not directly related to the

production of subsistence only when there is some kind of economic surplus (Brumfiel and Earle 1982). Working on the assumption that specialised potters should produce more standardised pottery than non-specialised artisans, evidence of pottery standardisation should be considered as an indicator of social complexity. It is thought (Costin and Hugstrum 1995; Hagstrum 1985; Longacre 1998; Rice 1981, 1991) that in specialised production contexts the limited number of potters and their skills and the routinisation of their activity increases the uniformity of the products; specialised potters tend to develop efficiency, consistent motor habits, professional skills and experience, factors which reduce the variability in their ceramic output. For similar reasons the fewer the potters or work units involved in the production the lower is the expected internal variability of the product. The above-cited archaeologists and ethno-archaeologists have been working on the idea that there is a direct connection between the degree of standardisation within a given pottery assemblage and the intensity of the production; this, in turn, is related to the degree of specialisation of the potters and therefore the socioeconomic organisation behind them.

Costin, Hugstrum, Roux, Longacre, and Sinopoli, have all studied ethnographic ceramic production in order to define a framework of expectations for metric variability within a given pottery assemblage which they then applied to archaeological assemblages. In most of these works morphological variability was calculated analysing the Coefficient of Variation (CV) of specific dimensions within particular types of pots such as rim diameters, maximum diameters, height, wall thickness, etc. The Coefficient of Variation, indicated by many as the most appropriate statistic calculation for morphological variation (Costin and Hugstrum 2000; Eerkens and Bettinger 2001; Longacre 1999; Roux 2003), is obtained by dividing the standard deviation within the sample population by the mean of the sample and multiplying the result by 100. According to the standardisation hypothesis a low CV would indicate a higher degree of standardisation (and therefore craft specialisation). However, all the authors also agreed on the fact that there is no such a thing as absolute standardisation, as is clearly stated by Rice *“The important term here is “relative”. There’s no single scale, no decontextualised*

measure, no quantitative index with an absolute zero for comparing variability and standardisation of pottery through time and space. Standardisation is not a matter of presence/absence but one of degree" (Rice 1991, 268). There is no universal benchmark against which the degrees of standardisation of any given pottery assemblage can be measured.

All the works mentioned so far have compared at least two ceramic groups or types, and tended to compare an ethnographic context with one or more archaeological groups. Whilst these works have provided a useful background for the interpretation of the archaeological remains, they have also exposed the inevitable limitations of the archaeological record and therefore the caution that needs to be used in interpreting it through ethnographically generated paradigms.

There are several factors that influence the degree of morphological variability in a pottery assemblage that are not only related to the mechanical aspects of the production or its economic background but rather to the emic perception of standardisation shared by the community and to the final use destination of the products. These elements were identified by Schiffer and Skibo (1997, 34) as 'situational factors' and include all those environmental, social and cultural 'externalities' that determine the artisan's choices. An interesting example is offered by Angle and Dottarelli in their ethnographic study of the specialised pottery production in the village of Uzlu, eastern Anatolia (Angle and Dottarelli 1992). Their work showed that the degree of standardisation of the vessels produced by the specialised potters of Uzlu changed according to the final destination of the pots; the quality control applied for the pots produced for an external market appear to be higher than for those destined to an internal use. The social role and function of the vessels can also impact on the degree of tolerance towards the vessels' formal variability. The perception that a community has of an object is related to its practical use as well as its symbolic function and is therefore deeply embedded in the cultural life of the community itself. For this reason we can imagine several elements that are often difficult to read and interpret from the archaeological record alone.

5.7.2 'Time' and 'work units': uncontrollable variables

In her work in India and Spain Roux (2003) distinguishes the daily outputs of different potters in order to test the differential degree of variability in relation to the work units and the number of production events in which the given assemblage was produced. Roux noticed that even within the output of a single potter the variability increases when considering sets of vessels produced in more than one production event. Following Blackman et al. (1993) Roux describe this phenomenon as "*cumulative effect*" (Roux 2003, 775) or "*cumulative blurring*" (Blackman et al. 1993, 73); the same occurs when the analysis of morphological variation is applied to the product of more than one potter; both Longacre (1999, 53) and Roux (2003, 775), in their ethnographic works, noted that the CV values tend to increase when analysing the work of several potters together.

The ability to distinguish between different potters or different production events is very rare in an archaeological context and thus it becomes essential to appreciate the scale of the problems we face in applying this kind of analysis to archaeological assemblages. Except for some extraordinary cases such as the mass-produced bowls that stuck together during a failed firing preserved at the Bronze Age site of Tell Leilan (Blackman et al. 1993) or the votive depositions in medieval Vijayanagara (Sinopoli 1988), it is virtually impossible to ascertain the time range of the production of a given set of pots which come from consumption (rather than production) contexts from an archaeological settlement. In the case of Arslantepe VII for example, the assemblage analysed was produced during a period that spanned about four hundred years, which means that the pots were produced by several generations of potters. Even if we only consider the pots found in one room it would still not be possible to define the time span in which they were produced. The same can be said of attempts to determine the number of potters or work units involved in the production of these pots and how they were selected by the household.

5.7.3 Morphological variability at Arslantepe VII

Aware of these limitations and keeping in mind the relative value of standardisation I decided to assess the 'standardisation hypothesis' in relation to

the archaeological record from Arslantepe VII and consider whether it can be applied to its ceramic assemblage. Given the interesting dichotomy already noted between handmade and wheel-thrown pottery in our assemblage I attempt an analysis of metric variability in order to compare the degree of standardisation between these two ceramic groups and test the hypothesis that the handmade pots were produced in more domestic and less specialised working environment than the wheel-thrown pots. In doing so, the first aim is to test the idea, formulated during a visual observation of these two groups, that the handmade ceramics were less standardised than the other group and, secondly, to address the nature of the organisation of production at Arslantepe VII.

In the present study, the CV analysis was applied on the medium and large storage jars, the cooking pots and the mass-produced bowls. The labels used in the tables below to differentiate between the types (D1a-c, D2 and F1 etc.) are only provisional as the formal typology of Arslantepe VII pottery assemblage is not yet completed and is currently being studied and assessed by myself and other members of the Italian archaeological expedition at Arslantepe.

Following the idea that a single variable is not sufficient to identify differences between vessels (Sinopoli 1988, 591) and that ratios between variables offer a more complex perception of the shape of a vessel than individual variables, I decided to calculate the CV on the ratios between two variables for each group of vessel. The morphological variables used for the analysis were the ratio between rim diameter and maximum diameter in the case of the restricted jars and the ratio between rim diameter and height in the case of the bowls. The rim diameter was always calculated on the interior while the maximum diameter was calculated on the exterior.

My choice of functional groups, specific types of pots and particular morphological variables was based on the quantity of fragments available for each type and the characteristics of the fragmentation of the vessels (the fragments had to be large enough to allow the measurements of at least rim diameter and maximum diameter for the restricted pots and rim diameter and height for the

bowls). Given the explicit intention to compare the degree of variability within the two groups (wheel-thrown and handmade), another criteria for selection was the presence of comparable types in each group. This meant that some functional groups were excluded from the analysis because there were not enough fragments in either one or the other group. Nonetheless, the mass-produced bowls were analysed even though the handmade bowls were too few to be included; as their unparalleled quantity, their concentration in monumental buildings and their uniformity the mass-produced bowls made them an ideal group of vessels to test the 'standardisation hypothesis' through the analysis of morphological variability.

Serving / storage jars

I calculated the coefficient of variation on the ratio between rim and maximum diameter of three types of medium and large jars made or finished with the help of a rotating device and one type of handmade serving jars. The tables that follow contain a sample image of the jars, which, for formatting reasons, were individually scaled; the ratio between the variables considered and the CV value.

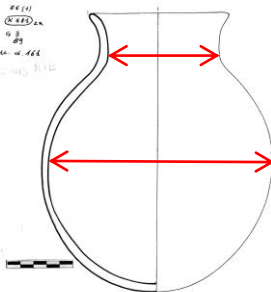
Type	Rim/Max Diam ratio		
D1a (O)	0.3272	STDEV	0.0602
	0.3888	AVERAGE	0.4457
	0.4117	CV	13.52%
	0.4213		
	0.4444		
	0.4571		
	0.475		
	0.5		
	0.5151		
	0.5161		
	Tot 10 pots		

Table 5.2 – Coefficient of variability for type D1a, wheel finished medium jars.

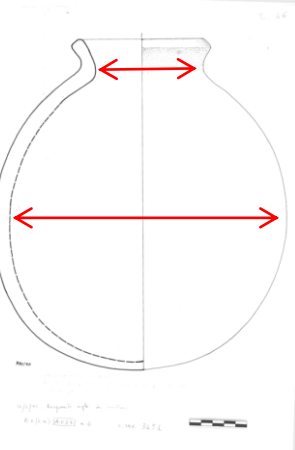
Type	Rim/Max Diam ratio		
	0.2083	STDEV	0.0668
	0.2127	AVERAGE	0.3139
	0.2325	CV	21.30%
	0.3030		
	0.3181		
	0.32		
	0.3214		
	0.3222		
	0.3461		
	0.3777		
	0.3928		
	0.4117		
	Tot 12 pots		

Table 5.3 - Coefficient of variability for type D1b, wheel finished medium to large jars.

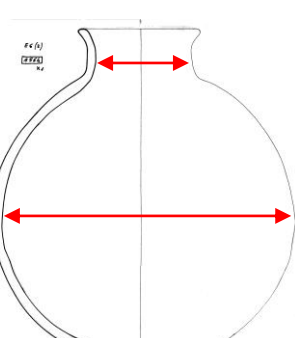
Type	Rim/Max Diam ratio		
	0.2558	STDEV	0.0300
	0.3	AVERAGE	0.3202
	0.32	CV	9.37%
	0.3272		
	0.3333		
	0.3333		
	0.3437		
	0.3484		
	Tot 8 pots		

Table 5.4 - Coefficient of variability for type D1c, wheel finished medium to large jars.

Of the three types of jars that were produced with the aid of a rotating device (D1a-c) the two types that show the lowest values of CV are found predominantly (D1a) or only (D1c) in the last phases of Period VII while the production of type D1b, which is very frequently found across Period VII, seems to be discontinued in the final phases of the sequence. These vessels probably served the same purpose in different phases; it seems that type D1b was replaced by D1c at the end of the period. The evidence that in the latter type the CV value is remarkably lower may indicate that, towards the end of Period VII, the production of certain vessels was

more skilled and labour intensive, producing a higher degree of standardisation which was probably required by whoever ordered the work. However, this interpretation needs to be considered with caution as there are other variables that might have determined the different degrees of standardisation in this analysis. As discussed below, the fact that D1b jars were produced across a longer period is probably one of the reasons behind their higher variability and the sample size for both groups is very small.

As far as the handmade production is concerned, fragments of jars belonging to type D2a (see Table 5.5) were found across the whole sequence, which could indicate a higher conservatism in the 'domestic' production.

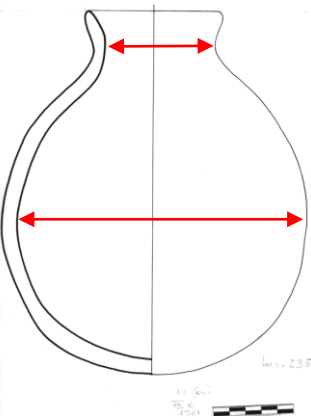
Type	Rim/Max Diam ratio		
D2a (GG)	0.2592	STDEV	0.0659
	0.2727	AVERAGE	0.3747
	0.3	CV	17.59%
	0.3111		
	0.325		
	0.3333		
	0.3333		
	0.3428		
	0.3461		
	0.3636		
	0.375		
	0.3833		
	0.4074		
	0.4090		
	0.4117		
	0.4130		
	0.4166		
	0.4166		
	0.45		
	0.5		
	0.5		
	Tot 21 pots		

Table 5.5 - Coefficient of variability for type D2a, handmade medium to large jars.

A synopsis of the overall results is offered in the following table (Table 5.6) where the four coefficient of variation are comparable.

Ceramic group	Type	CV	N.
Wheel-shaped/finished	D1a	13.52%	10
	D1b	21.30%	12
	D1c	9.37%	8
Handmade	D2a	17.59%	21

Table 5.6 – Synoptic table presenting the CV analysis of serving / storage jars

Predictably, the types with the highest CVs, therefore the less standardised, are those that were produced across a longer period of time. This evidence confirms the difficulty of evaluating the degree of standardisation in archaeological assemblages produced across long time spans. It is interesting to note, however, that among the two types produced over a longer period, and therefore expected to be less standardised, the handmade type, D2a, has a lower degree of variability than the wheel-thrown one, D1b.

In the attempt to reduce as much as possible the cumulative effect I decided, where the data was available, to apply the same analysis on pots found in contemporaneous archaeological contexts; the results are shown in the following table. Unfortunately, some of the values of CV differentiated by contexts were obtained from very small samples, thus reducing the reliability of the results. Nonetheless, I thought it was worthwhile to attempt this approach which could be used on other assemblages.

Ceramic group	Type	CV whole	CV per context	Contexts	N.
Wheel-shaped/finished	D1a	13.52%	7.74%	A842/48/58	6
	D1b	21.30%	22.20%	A582/A617	8
	D1c	9.37%	7.01%	A564/A900	4
Handmade	D2a	17.59%	12.27%	A21/A22	5

Table 5.7 – Synoptic table presenting the results of Coefficient of Variability analysis on service/storage jars by groups of contemporary contexts.

The table above (Table 5.7) shows that the formal variability diminishes significantly for vessels produced roughly contemporaneously. In three out of four cases the CV is reduced from two to five percent, confirming that, unless the time range of production can be verified, the analysis of formal variability is unavoidably flawed. As for the results of type D1b, the high values of CV could suggest either that, for some reason, the potters did not have any interest in controlling the formal variability of these jars or that our typology has grouped together forms that, although similar to our eyes, were different to the potters.

Cooking pots

The same methodology used for the serving and storage jars was also applied for the cooking pots with the only difference being that it was possible, in some cases, to use the ratio between maximum diameter and height as variable alongside the ratio between rim and maximum diameter. A total of four types of pots were analysed, two of which were wheel-thrown/shaped (F1a and F2a) and two handmade (F5b and F8a/b). For the first two it was possible to calculate the ratio between maximum diameter and height.

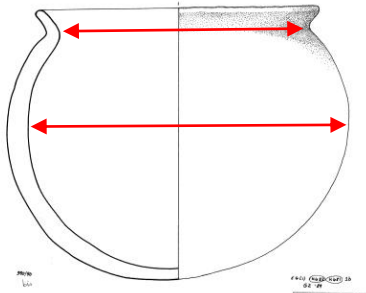
Type	Rim/Max Diam ratio		
F1a/b	0.5938	STDEV	0.0698
	0.6071	AVERAGE	0.7064
	0.6296	CV	9.87%
	0.6429		
	0.6522		
	0.6522		
	0.6571		
	0.6667		
	0.6667		
	0.6731		
	0.675		
	0.6792		
	0.6957		
	0.7		
	0.7097		
	0.7368		
	0.75		
	0.75		
	0.775		
	0.7778		
	0.7895		
	0.8		
	0.8125		
	0.86		
	Tot 24 pots		

Table 5.8 - Coefficient of variability for type F1a/b (rim/max diameter ratio), wheel finished cooking pots.

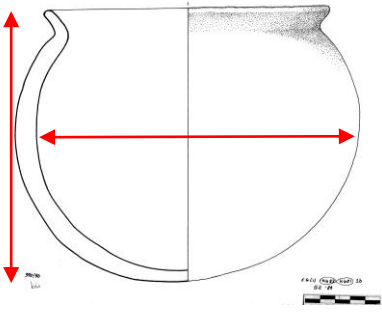
Type	MaxDiam/ Height ratio		
F1a/b	1	STDEV	0.2450
	1.12	AVERAG E	1.3690
	1.125	CV	17.89%
	1.15		
	1.2		
	1.2778		
	1.3333		
	1.3571		
	1.3684		
	1.375		
	1.4286		
	1.5238		
	1.6667		
	1.7857		
	1.8235		
	Tot 16 pots		

Table 5.9 - Coefficient of variability for type F1a/b (Maximum diameter/Height ratio), wheel finished cooking pots.

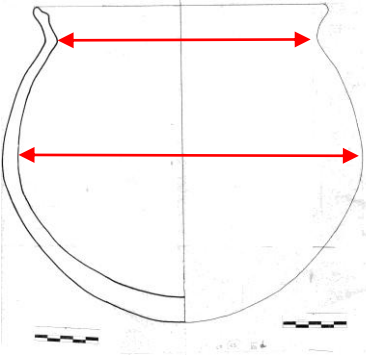
Type	Rim/Max Diam ratio		
F2a	0.6	STDEV	0.0594
	0.6087	AVERAGE	0.7040
	0.6122	CV	8.44%
	0.64		
	0.6579		
	0.6667		
	0.6735		
	0.6818		
	0.6875		
	0.6875		
	0.7021		
	0.7027		
	0.7143		
	0.7143		
	0.72		
	0.7241		
	0.7333		
	0.7407		
	0.7429		
	0.7692		
	0.7826		
	0.8125		
	0.8182		
	Tot 23 pots		

Table 5.10 - Coefficient of variability for type F2a (rim/maximum diameter ratio), wheel finished cooking pots.

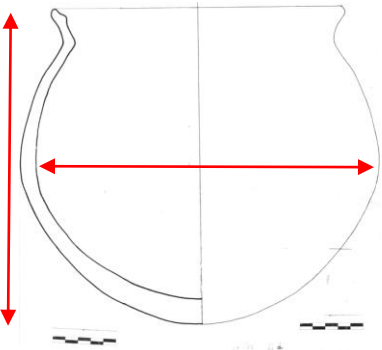
Type	Max Diam/Height ratio		
F2a	1.08	STDEV	0.1480
	1.1364	AVERAGE	1.3529
	1.1765	CV	10.94%
	1.1875		
	1.3143		
	1.3333		
	1.3611		
	1.3611		
	1.375		
	1.3824		
	1.4118		
	1.4444		
	1.45		
	1.4667		
	1.5333		
	1.6333		
	Tot 16 pots		

Table 5.11 - Coefficient of variability for type F2a (maximum diameter/height ratio), wheel finished cooking pots.

The above four tables present the results for the two wheel-thrown types of cooking pots here analysed. Both these types were found across the whole sequence of Arslantepe VII, although they are relatively rare in the final phases. This could depend on the particular function of the contexts belonging to the last phase (see next chapter for more detailed discussion). Two interesting elements emerge from these tables: firstly that in both cases the potters seem to exert more formal control over the ratio between the rim and maximum diameters rather than that between max diameter and height; secondly; compared with the serving and storage jars, both types of cooking pots analysed here have a lower degree of variability, possibly indicating the importance of certain formal characteristics connected to the functionality of the pots.

In the following two tables I show the results of the analyses on two types of handmade cooking pots. The final table provides a synopsis of the CVs of all the cooking pots analysed.

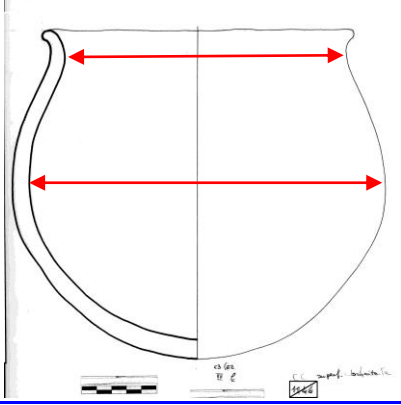
Type	Rim/Max Diam ratio		
F5b	0.6	STDEV	0.0456
	0.6042	AVERAGE	0.6678
	0.6857	CV	6.82%
	0.6875		
	0.6889		
	0.7		
	0.7083		
	Tot 7 pots		

Table 5.12 - Coefficient of variability for type F5b, handmade cooking pots.

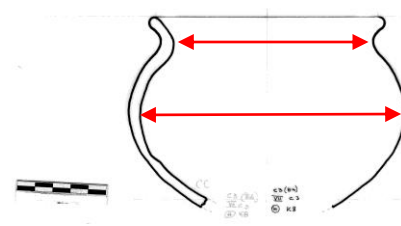
Type	Rim/Max Diam ratio		
F8	0.6563	STDEV	0.0433
	0.678	AVERAGE	0.7286
	0.6875	CV	5.94%
	0.7333		
	0.75		
	0.75		
	0.7647		
	0.7667		
	0.7714		
	Tot 9 pots		

Table 5.13 - Coefficient of variability for type F8, handmade cooking pots.

Ceramic group	Type	CV
Wheel-shaped/finished	F1a/b	9.87%
	F2a	8.44%
Handmade	F5b	6.82%
	F8	5.94%

Table 5.14 – Synoptic table presenting the CV analysis of cooking pots

Interestingly, and against the expectations discussed earlier, the handmade pots show very low values of formal variability when compared to the wheel-thrown pots. There can be multiple explanations for this result; admittedly for the handmade pots only a very small sample was available, which statistically reduced the chances of variability. Another important element is that the handmade pots came from roughly contemporaneous contexts and, as seen above, the provenience of the pots from such contexts increases the chances that their production was less affected by the variable of time. The wheel-thrown pots considered in the present analysis were produced across a longer stretch of time, which could explain the higher values of CV; they must have been produced by many different potters who would have introduced different mechanical skills and idiosyncrasies in the production.

Mass-produced bowls

Although there is no available comparison with the handmade assemblage, in this subsection I look at the coefficient of variation of the so called mass-produced bowls as they appear to be the result of an intensive production and therefore would seem to be the ideal test for morphological variability analysis. The CV was calculated on the ratio between the rim diameter and the height of the bowls, which is a good definer of the overall shape of the pots. The analysis was initially carried out on all the mass-produced bowls from Arslantepe VII, and was subsequently focused on several key contexts so as to reduce the effect of time in the metric variability index.

Due to the large number of vessels included in the samples the table below shows only the contexts analysed, the CV values and the actual number of pots included in each sample.

Looking at table 5.15 (below) the first noteworthy element is that, despite the very large number of vessels, the CV values are always relatively low when compared to the other functional groups considered earlier (see also table below). Although this may partly be due to the simpler shape of the bowls, this evidence seems to support the idea that the bowls were produced within a relatively specialised work environment such as pottery workshops and a certain degree of standardisation was probably required by whoever commissioned the product. This seems to be confirmed also by the fact that the CV values are quite consistent through the various contexts and only drop significantly when the sample analysed was smaller.

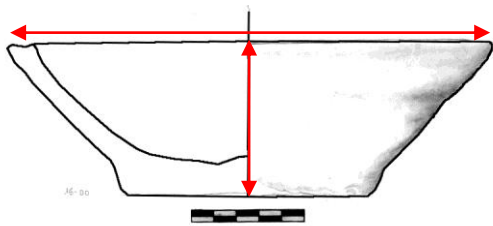
	Context	CV	n. of pots
	All contexts	9.57%	460
	A900	9.49%	130
	A932	9.60%	55
	A950	9.73%	104
	A842	7.88%	22
	A848	9.66%	41
	A858	7.72%	20
	A850	8.12%	63

Table 5.15 - Coefficient of variability for the mass-produced bowls by contexts, wheel made.

I found further support for the interpretation of the bowls' CV values (and transitively the other pots) in the work by Blackman, Stein and Vandiver (1993) on a stack of bowls, fused together during firing, from Tell Leilan. Of importance is the fact that the bowls in this sample were the result of a single production event. The authors used observations on the manufacture techniques, mineral composition and metric variability to establish the degree of standardisation of this group of bowls and therefore the degree of specialisation of the potters. The CV values obtained by their analysis were all below 10 percent which allowed Blackman and colleagues to compare their results with those obtained by Longacre *et al.* (1988) studying the specialised production of cooking pots in the Philippines and argue for a similar degree of craft specialisation in 3rd millennium BC at Tell Leilan (Blackman

et al. 1993, 72-73). Blackman and the others also carried out the same analyses on another sample of bowls from the same site that might have been produced over a period of around 200 years. The difference between the two samples was quite significant as the CV value for the rim diameter varied between 15 percent and 18 percent; according to the authors this difference was determined by the fact that the second sample was the result of several production events (cumulative blurring) rather than the single event of the stack of bowls found in the kiln and they suggested that the high CV for the 200 year sample was not contrary to their hypothesis that there was a high degree of craft specialisation.

The evidence from Tell Leilan is extremely useful for interpreting the results from the metric analysis on the Arslantepe VII bowls. The CV for the rim diameter of all of the Arslantepe bowls is 10.58 percent and 10.60 percent for their height. These values are only one percent higher than the Tell Leilan single-production-event sample and up to seven percent lower than the second sample spanning 200 years used by Blackman and colleagues. Considering that the cumulative blurring at Arslantepe VII is higher than Tell Leilan (400 years rather than 200) we should be able to argue that the degree of standardisation of Arslantepe's bowls is potentially even higher than Leilan's bowls. These arguments would support the idea that the Arslantepe VII bowls were the output of an environment where the level of specialisation was relatively high.

Whilst it is tempting to accept this argument, it is important to bear in mind the principle of relativity discussed earlier; and that absolute values of standardisation do not exist. Thus, we should recognise the limitations of cross-cultural comparisons between different archaeological sites, the archaeological and the ethnographic record. A simple piece of evidence for the weakness of certain comparisons is the fact that the CV values below 10 percent are considered indicators of specialised production by Blackman and colleagues using Longacre's work in the Philippines as a benchmark (Blackman *et al.* 1991, 72); but the same values are considered evidence of a low-rate, small or very small scale production by Roux according to the records she collected for wheel-made pottery in ethnographic contexts in India and Spain (Roux 2003, 780).

Despite these opposing opinions, Roux’s arguments further substantiate the idea that Arslantepe’s bowls were the result of large scale and specialised production. Roux argues that for the second sample used at Leilan “18 percent values could be the results of a cumulative effect of 200 years and correspond to vessels whose degree of variability, for a single production event, could not have exceeded 9 percent” (Roux 2003, 280-1). Applying this argument to Arslantepe’s CV values of 10 percent, which are the result of 400 years of cumulative effect we should be able to suggest that in a single production event the bowls from Arslantepe had CV values well below 9 percent and therefore comparable with the high rate, large to medium scale production established by Roux.

5.7.4 The difficulty in interpreting the results from morphological variability analysis: final remarks

In the following table I bring together the CV values calculated and discussed so far.

Ceramic group	Serving/Storage Jars	Cooking pots	Bowls	CV
Wheel-shaped/finished	D1a			13.52%
	D1b			21.30%
	D1c			9.37%
		F1a/b		9.87%
		F2a		8.44%
			A1a/b	9.57%
Handmade	D2a			17.59%
		F5b		6.82%
		F8		5.94%

Table 5.16 – Coefficient of Variability analysis, summary of results

As already discussed, due to the variable nature of the samples, these CV values are not always directly comparable. Hence the table above aims to serve as a summary rather than a comparative tool. The samples are different sizes and, more importantly, the cumulative blurring on some of the samples is considerable. As seen before, the time variable affects the results of morphological variability analyses and reduces the chance of detecting actual degrees of craft specialisation in assemblages produced over long periods such as that of Arslantepe VII.

It is the different nature of the samples analysed that is the main obstacle to providing a clear interpretation of these values. The comparison between wheel-thrown and handmade pottery is only partial as two out of three types of handmade vessels are not easily comparable with the other groups; for instance the two types of handmade cooking pots are from contemporaneous contexts and had a low cumulative effect, unlike the two wheel-thrown types, which were excavated from across the whole sequence. As for the serving and storage jars, it seems that the handmade jars (D2a) have a lower degree of variability than one of the wheel-thrown pots (D1b), but, as noted above, the comparatively high CV values of these two types could also be affected by unavoidable idiosyncrasies within our typology. On the other hand, the other two types of wheel-thrown jars show lower degree of variability and appear to be more standardised.

As detailed above, there are various factors that influence the morphological variability in the production of the ceramic vessels and, unfortunately, most of these elements cannot be easily verified by our analysis of the archaeological record. For this reason any hypothesis on the differences in the organisation of the production of handmade and wheel-thrown pots based on the evidence from their manufacture techniques can only partially be supported by the analysis of morphological variability presented here.

Nonetheless, these analyses have provided some further support to the theory that some of Arslantepe VII vessels were produced by relatively specialised potters. This idea is supported by the comparison of the results of my analyses with those from other archaeological and ethnographic contexts (Blackman *et al.* 1991;

Longacre *et al.* 1988; Longacre 1999; Roux 2003). If one tries to interpret the evidence from Arslantepe VII using the parameters set by the works carried out by these authors one could argue that the Arslantepe VII pots were the output of an intensive production that fulfilled a demand for a relatively standardised product.

5.8 Arslantepe VII ceramics in the context of northern Mesopotamia: redefining networks to understand regional power structures

In order to understand the relevance of Arslantepe VII in the emergence of early complex societies in Greater Mesopotamia this section explores possible network of contacts with other sites in the region. The Arslantepe VII pottery assemblage is compared with other contemporary sites in northern Mesopotamia.

At the beginning of this work I mentioned how scholars that preceded me in the study of Arslantepe VII ceramic assemblage have put a great deal of effort in identifying the ceramic correlations and cultural interactions with other areas in eastern Anatolia and northern Mesopotamia. Palmieri (Palmieri 1985), Frangipane (Frangipane 1993), and Trufelli (Trufelli 1997) were able to identify a framework of chronological references based on the typological similarities among Chalcolithic sites in northern Mesopotamia (Figure 5.29). Their contributions were influential in the definition of the chrono-typological sequence of 4th millennium BC ceramics as they were based on materials coming from a stratigraphically excavated sequence when not many other sites had been excavated to provide useful chronological benchmarks. Their task was complicated by the extensive area of analysis and the length of the periods they looked at; but this, at the same time, granted a wide and fully comprehensive look at the data available.

In the following section I offer an overview of theirs and other authors' works briefly describing their results and those aspects of their research that have opened new directions in the study of 4th millennium in northern Mesopotamia. I will then discuss the picture of interregional connections, as it appears from their work and in light of my and others more recent data.

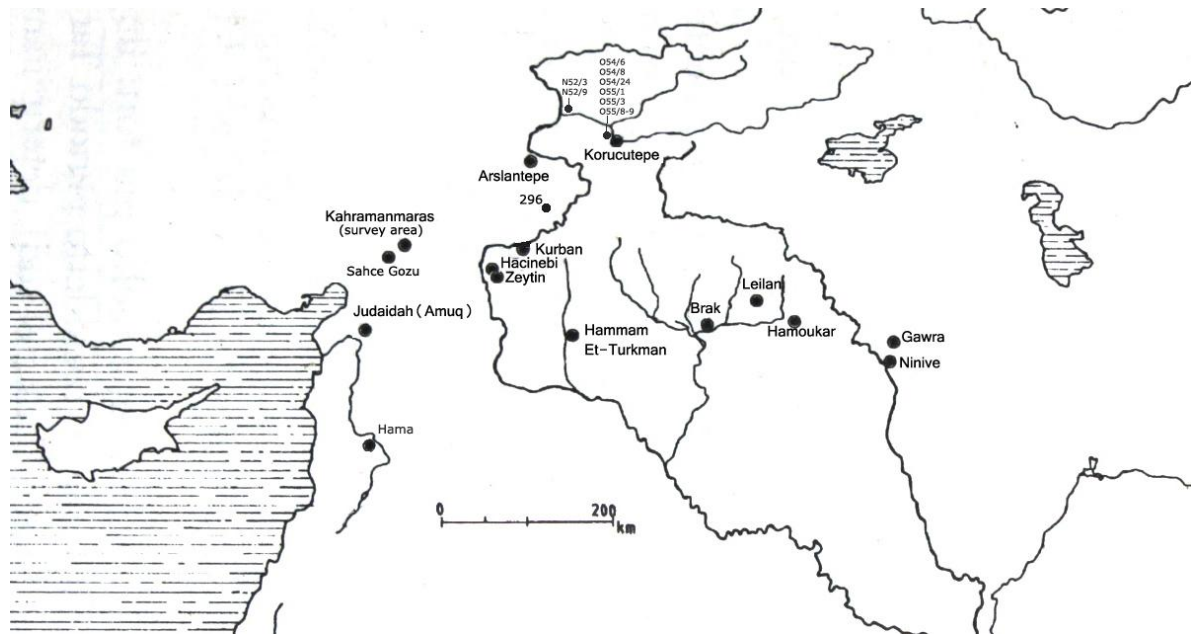


Figure 5.29 – Map of 4th millennium BC northern Mesopotamia (adapted from Frangipane 1996 – Fig. 31)

5.8.1 Arslantepe VII in its regional context

Late Chalcolithic ceramic production in northern Mesopotamia following the Ubaid period is characterised by a series of features that are widely shared by most of the sites excavated and surveyed in the region and determine a sort of common denominator in the ceramic production processes during the 4th millennium BC in this area. These features include the disappearance of painted decoration, the predominance of chaff faced wares, the use of the wheel, a trend towards increased standardisation, the appearance of mass-produced bowls, and the use of potters' marks (see also Section 3.3.5). Trufelli also highlighted an increased number of large storage jars which was interpreted as evidence for improved skills of the ceramists and a new requirement for storage facilities which in turn would be connected with the practices of centralised collection of surplus (Trufelli 1997, 16). Palmieri refers to some 'general features' such as the mass production of bowls, the use of chaff tempered pastes and slow wheel as reflections of wide networks of contacts within the "*entire Upper Tigris-Euphrates area*" (Palmieri 1985, 193). In this regard, Palmieri hinted at the presence of specific connections between sites. She suggested for example that the local Late Chalcolithic in the Malatya plain shows several similarities (see further details below) with the Amuq F materials (according

to the sequence established by Robert and Linda Braidwood (Braidwood and Braidwood 1960). In more general terms the type that Arslantepe VII ceramic assemblage seems to share with most of its contemporary sites is the conical bowl, these artefacts were found at Tell Hamman et Turkmann on the Balik and Tell Brak in the Khabur basin in northern Syria; at Tarsus in Cilicia; Amuq plain as well as at Norşuntepe and Korucutepe in the Altınova plain (Keban basin) area, at Tepe Gawra in the Iraqi Upper Tigris; the list could go on. But it was already apparent that within the large area encompassed by this specific shared characteristics there were strong local traditions which characterised the production at specific sites.

Drawing on Palmieri's suggestions and working with further new evidence Frangipane and Trufelli were able to suggest that within these general features that characterised the ceramic production in the whole of northern Mesopotamia it was possible to distinguish regional characteristics which, in turn, helped define three main areas of interaction (Figure 5.30).

The identification of these different areas of cultural interaction for this phase of northern Mesopotamian cultural development has a particular relevance because it is during this period that the first Uruk features make their appearance in the material assemblages of northern Mesopotamian sites. As noted by Trufelli this phenomenon creates a clearer distinction between settlements in which only local pottery was found and those that start featuring Uruk materials among their assemblages (Trufelli 1997, 15).

The central region

One of these areas comprises the Turkish Euphrates basin south of the Taurus Mountains (Kurban Hüyük, Hacinebi and Zeytin Bahçe) and the Balik and Khabur basins in northern Syria (Tell Hammam et Turkmann, Tell Brak, Tell Leilan and Hamoukar); the area is identified by several similarities among which is the widespread presence of the so-called hammer-head bowls, casseroles and corrugated neck jars (see for instance Felli 2003; Fielden 1981, Figures 1-2; Oates and Oates 1993, Figures 52-54; Pearce 2000, Figures 4, 9-10). This is the region that shows the earliest evidence of contact with southern Mesopotamian groups as

indicated by the presence of abundant quantities of Uruk pottery alongside the local production. Recent investigation in the Khabur area has shown that both at Tell Brak and Hamoukar the late 5th and early 4th millennium ceramics are indeed very similar to those found at Tepe Gawra which shows evidence of contacts that go well beyond the limits of the cultural areas described here (Frangipane 1993; Oates et al. 2007).

The eastern region

Another distinct tradition within the mentioned communal denominator of Late Chalcolithic ceramics is identified at the site of Tepe Gawra on the Upper Tigris. The assemblage from this site is characterised by hole-mouth pots; double rimmed pots; carinated beakers with long straight out-flaring rims among the others; also characteristic of this assemblage were painted, impressed and stamped decoration (see Rova 2000, Figure 2; Trufelli 1997, Figure 4). Interestingly similarities with the pottery from this sites were found much further north at sites such as Norşuntepe in the Keban basin not far from the source of the Tigris itself, suggesting that the relation/communications were maintained along the fluvial valleys (Rova 2000). However, as mentioned above and further discussed below, similar ceramics have also been found to the west of Gawra, in the Khabur region, at site such as Tell Brak and Tell Hamoukar.

The western region

A third region was identified to the west of the Euphrates River (Amuq, Queiq, Hama) was characterised by the frequent presence of red slipped pottery showing therefore close similarities with Arslantepe VII assemblage (Frangipane 1993, 155). The main traits of this area were further defined by Trufelli (Trufelli 1997). Although she argued that red slip treatments of the surfaces, in Cilicia and in the Amuq plain, are found on fine ware vessels unlike at Arslantepe (where no fine ware was produced), Trufelli identifies other similarities between the sites in this area. The rims of some large jars from Arslantepe VII are modelled in the internal surface, with a groove and a correspondent ledge; these are directly comparable with some jar rims published by Linda and Robert Braidwood among the Amuq F materials

(Braidwood and Braidwood 1960, Fig. 176: 10-16). Some of the slipped and burnished bowls found at Arslantepe VII also have a high carination and thickened rims which are also found at sites belonging to the Amuq F phase (*ibid* 172, Figures 4-7), at Tarsus, Qoueiq F, Hama K7-8 (Trufelli 1997, 19). Finally, although painted decoration is a frequent feature in Amuq, Tarsus and Cilicia, it is very rare at Arslantepe VII, only occurring in two small beakers and a small high footed bowl decorated with simple linear patterns (*ibid* Figure 8). Finally, it is worth mentioning that a possible link between Arslantepe and Koruçutepe (in the Keban basin and associated with the Tigris region) was suggested by Prof. Rova (Rova 2000, 182) who noticed the presence at Koruçutepe of a small beaker that closely resembles those found in large quantities at Arslantepe VII and hardly anywhere else. Although the beaker from Koruçutepe is typologically similar to a variant that is in fact quite rare at Arslantepe VII, this evidence is still interesting as it indicates similar habits of consumption which is even more remarkable in the light of the absence of beakers in other contemporary sites in the area.

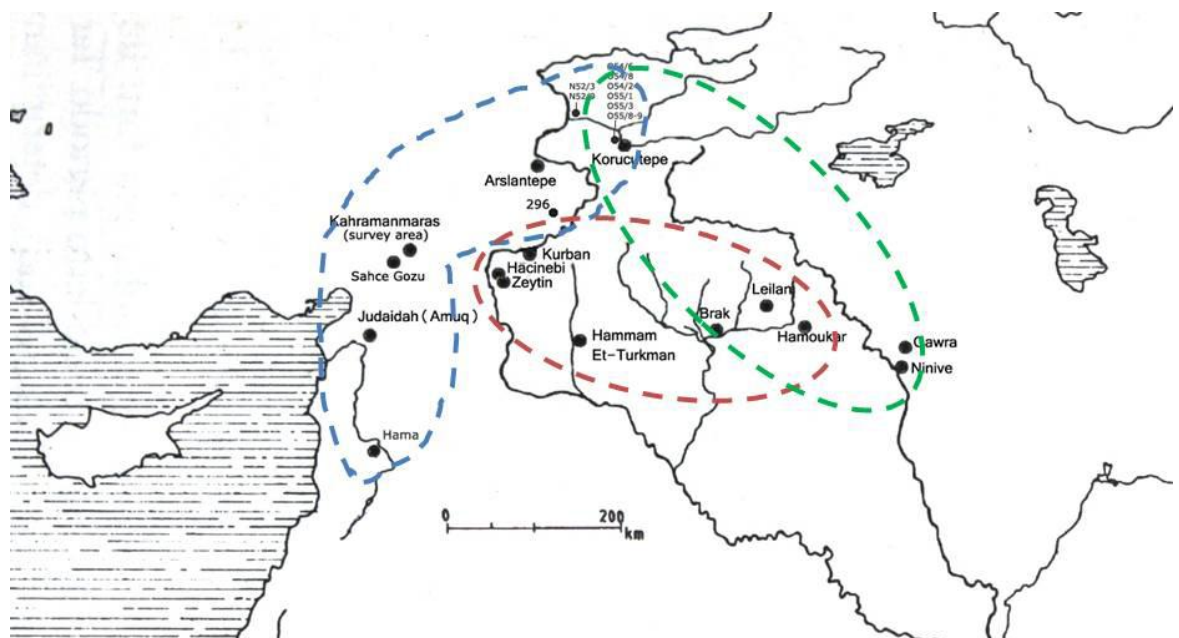


Figure 5.30 – Chalcolithic sites in northern Mesopotamia and networks of contacts. The red line encompasses the central region, the western one is marked in blue and in green is the eastern region (adapted after Frangipane 1996 – Fig. 31)

5.8.2 Survey projects along the Turkish Euphrates: further evidence for networks of contacts

After the exploratory surveys carried out in the 1920s by van der Osten and in the '50s by Burney (Burney 1958), archaeologists' attention focused on the area along the Turkish Euphrates mostly as a consequence of the construction of three large dams Keban (1966-1974), Karakaya (1976-1987) and Karababa (1983-1990). The vast areas to be affected by the flooding were investigated with field surveys and in some cases salvage excavations at key sites were also carried out (Brown 1967; Burney 1958; Ozdogan 1977; Russell 1980b; Whallon 1979; Whallon and Kantman 1969; Yakar and Gursan-Salzmänn 1979). The definition of regional cultural areas discussed above benefited enormously from the results of these surveys as they offered an overview of a fairly large and mainly unexplored area for the first time. In fact these surveys produced a wealth of material previously unmatched in those regions and inspired new research which ultimately during the 1980s and 1990s expanded our knowledge of the history of these regions – previously relegated as a rather obscure place between the two worlds of peninsular Anatolian and the Mesopotamian Alluvium – enormously.

For the present section I reviewed the published results of these surveys in order to further discuss the possible networks of contacts between Arslantepe and contemporaneous neighbours.

New elements of comparison from other sites along the Turkish Euphrates and the Maraş areas.

In terms of the definition of possible networks of contacts for Arslantepe VII there are a few additional observations that can be made.

In line with the connection between Arslantepe VII and Koruçutepe suggested by Rova (see previous section) I have noticed some other similarities with materials found by Whallon in the Altınova plain (where Koruçutepe is located). Some bowls that Whallon described among the Cream Chaff Ware (Whallon 1979, 20-22) are defined as having an “*inwardly bevelled lip*” (ibid 21) with a ridge on the inner side (ibid Figure10). Both the ware and the formal attributes of these bowls are a close

parallel with the Arslantepe VII mass-produced bowls but in this case the similarity, based on the characteristics of the rims (Whallon uses the term 'lip'), goes beyond the generic characterisation of the wide spread conical bowls (see Figure 5.31).

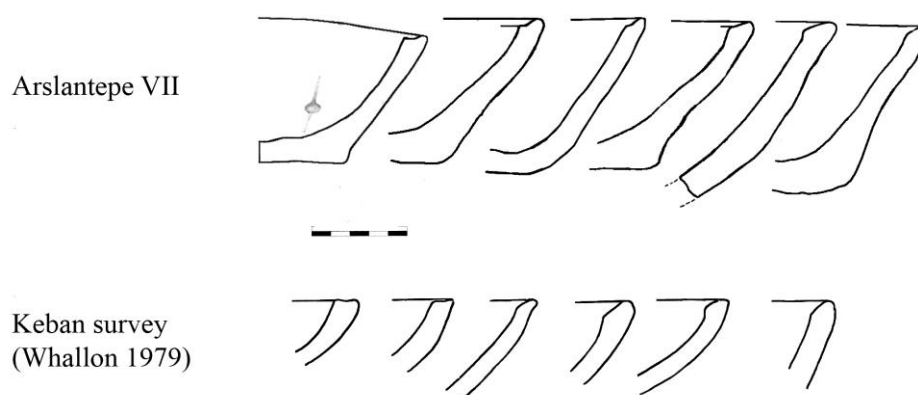


Figure 5.31 – Bowls from Arslantepe VII (top) and the Keban Survey (bottom)

It seems unlikely that these bowls were produced in the same place but the specific shape of the rims may reflect a common technological or cultural background between the two areas which suggest some affinity and contact between the Malatya and the Altınova plains. This idea is reinforced by some jars with 'out-angled rims' grouped in the same ware as the bowls by Whallon; in some cases (Whallon 1979, Fig. 11) these jars find direct parallels among the serving and storage jars from Arslantepe VII (Figure 5.32) although these were always treated with a red slip and burnished. Again the question about the meaning of these similarities remains open: does the formal similarity between these jars reflect some level of cultural exchange or shared technical knowledge despite the fact that in Arslantepe they were also slipped and burnished unlike the ones in the Altınova plain?

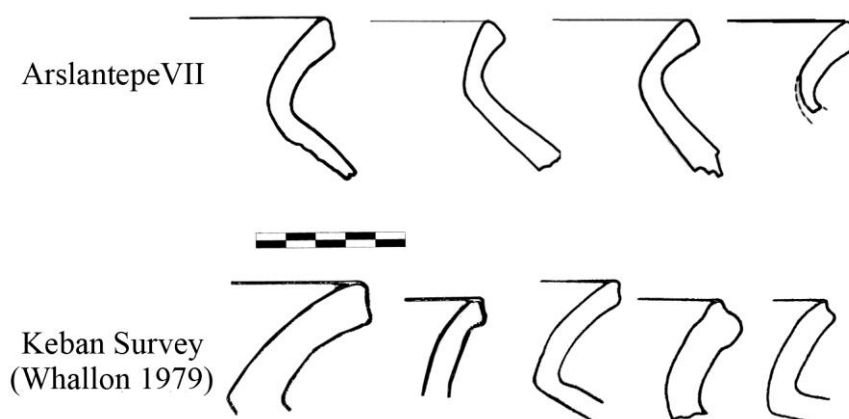


Figure 5.32 – Jars’ rims from Arslantepe VII (top) and the Keban Survey (bottom).

Another set of interesting data is provided by the materials from Burney’s survey published by Russell (1980a). The author presents a group of sherds that he describes as handmade chaff-faced burnished (Group H). The description of this ceramic group matches the handmade ceramics produced at Arslantepe VII and several of the pieces published by Russell actually have stylistic parallels with artefacts from Arslantepe VII assemblage. The closest comparisons can be found among the jars’ rim/neck fragments (Russell 1980a, Fig. 7: 271.13; 278.14; 296.2; 296.5; 272.3; 272.1; H10; G10). Most of these fragments come from sites in the Elazığ province (271, 271, 278, G and H, *ibid* Figure 29) reinforcing the idea (discussed about Whallon’s finds) that the links between this area and Arslantepe were actually quite strong. Site 296 is in the Adyaman province (*ibid* Figure 26) and its similarities with Arslantepe VII assemblage would be the first indication of direct contacts between these areas during Period VII. These similarities are particularly interesting in regard to the handmade assemblage of Arslantepe VII. These ceramics are here interpreted (see Section 5.4 but also Chapter 7) as being produced in domestic contexts and presumably belonging to a tradition that started before and continued despite the introduction of the new manufacture technologies and resisted needs of mass production and standardisation. If the new wheel-finished and mass-produced technologies had been developed and introduced in order to satisfy new economic needs, such as central storage of surplus, as well as new social practices which included large ceremonial events then, the handmade ceramics in

this specific case from the sites in the Elazığ province could reflect household economies and shared practices within the social organisation of these communities beyond that being developed by the central authorities. If the diffusion of mass-produced bowls in all of northern Mesopotamia can be explained by the establishment of new power dynamics, similarities among handmade assemblages could be due to a shared cultural background that was unrelated to these new powers. If these similarities can be interpreted as evidence of relations between the communities occupying different sites then this network of contacts was probably independent from the commercial interests of the new ruling elites and may have been linked by kinship relationships amongst 'commoner' households (members of same tribes for example) whereas the similarities between the mass-produced bowls identified in the Altınova plain with those in Arslantepe may suggest a particularly close integration at the level of elite and administrative practices between these sites.

In spite of Ozdoğan and his team's monumental work to survey the areas affected by the Keban, Karababa and Karakaya dams, not many similarities between their findings and those at Arslantepe can be found beyond the generic traits shared by most Chalcolithic sites in northern Mesopotamia. The samples of fragments shown in the tables do not seem to show any direct connection with Arslantepe VII ceramics. Nevertheless, the Chalcolithic materials from this survey project deserve to be studied directly rather than only through the published samples, as they have the potential to disclose important information about the networks of communication between settlements located along the Euphrates within and north of the Taurus Mountains.

Finally, when I reviewed some unpublished materials from Carter's survey in the area of Karamanmaraş I noted some similarities with Arslantepe VII repertoire that had hitherto been unobserved. These consisted in several rims of cooking pots characterised by the same kind of internal moulding of the rim as at Arslantepe VII and, particularly a fragment of necked jar with red slipped and burnished surface (Figure 5.33).



Figure 5.33 Red Slipped and Burnished Jar rim and neck fragment from Maraş site KM133-[126]. Photos by author 2010

This last fragment could have been easily ‘mistaken’ with a straight neck and dark red slip Arslantepe serving jars, typical of examples from the end of Period VII. The only difference was that the paste of the fragment from Maraş was slightly grittier than the jars from Arslantepe. Another artefact that attracted my attention was a well preserved *andiron* that was very similar to those found in several contexts at Arslantepe (Figure 5.34).



Figure 5.34 – Andirons; from left to right: Maraş Km 88 (photos by author 2010); Arslantepe Building XXIX (Arslantepe archive).

These clay objects are very roughly and simply shaped so although it might be meaningless to discuss typological similarities based on their morphological characteristics it is still of interest to consider their association with fragments of cooking pots that show significant similarities with those from Arslantepe VII. This association seems to suggest that, in the areas of Malatya and Maraş, food preparation practices may have been very similar and this, in turn, could indicate that the two areas shared similar cultural traditions.

To summarise the results of this review of the various surveys it should be noted that the relationships between the Keban (Elazığ) area materials and Arslantepe VII assemblage seem to be stronger than previously thought regardless of the fact that the chronological synchronisation of these areas is still patchy and poorly understood. The materials presented by Whallon (1979) are indeed extremely important in a re-evaluation of Arslantepe contacts with the sites north of the Euphrates. Secondly, the similarities identified between Arslantepe and some of the sites in the area of Kahramanmaraş are extremely relevant as they identify a new sphere of possible contacts for the community of Arslantepe VII and at the same time could represent a 'bridge' between Arslantepe and the Cilicia area which have often been described as having communal traits (Frangipane 1993; Trufelli 1997).

Admittedly, any interpretation of networks of interactions between different settlements would be more reliable if it were based not only on ceramic assemblages but also on other sets of artefacts. This would allow for a more comprehensive view of domestic and non-domestic practices carried out in the various sites. Unfortunately, as mentioned above, most of the sites discussed in the present section were identified by survey and when sample excavations were carried out they did not provide exhaustive architectural remains or diverse artefact assemblages. Even in the case of Kuruçutepe, which was thoroughly excavated, the Chalcolithic remains are scanty as they were only reached in small trenches (Van Loon 1978).

Recent survey project around Arslantepe, the relationship between increasing power and settlement pattern, unanswered questions from an uncharted territory.

A survey project carried out between 2003 and 2005 by Di Nocera and his team was specifically designed to analyse settlement patterns in the plain of Malatya around the site of Arslantepe. The results of this project not only shed new light on the occupational models around Arslantepe from the 5th to the 2nd millennium BC but also raised some interesting questions about the role played by Arslantepe in its immediate territory (Di Nocera 2008; 2009; D'Anna et al. 2008).

Arslantepe VII ceramics were found in fourteen sites in the whole of the plain which compared to the eight sites with Period VIII materials and the only five sites dated to Period VIA is a significant intensification of the territorial occupation. Admittedly, in most cases the fragments found were too sporadic to suggest a permanent occupation of the site, only two sites yielded sufficient quantity of diagnostic Arslantepe VII materials to be regarded as occupied during this period (site n. 96 and 101 in the map below (Figure 5.35)) while three other sites had isolated but very diagnostic and distinctive materials such as a fragment of red slipped stemmed bowl (site n. 61), a red slipped carinated beaker (site n. 24, Cano Tepe, already mentioned in Ozdoğan 1977) and a fragment of mass-produced bowl with a potter's mark (site n. 100) (D'Anna et al. pending).



Figure 5.35 - Distribution map of Chalcolithic sites in the plain of Malatya (location of sites is after D'Anna et al. 2008 – Fig. 1; base map is Google Earth)

Of the three Chalcolithic phases distinguished at Arslantepe, Period VII is the best represented in the rest of the plain of Malatya which seems to mirror the expansion of the mound itself (D'Anna et al. 2008, 568). Admittedly site n. 101 is so close to the main mound that it could reasonably be considered as part of it. Obviously the record of sporadic finds across the plain is difficult to interpret and only further investigation could confirm whether these finds were actually associated with

occupations. Nevertheless, in terms of understanding how the changes occurring at Arslantepe during the 4th millennium BC affected the surrounding territory it would be tempting to infer that the higher number of sites with Arslantepe materials in Period VII was a consequence of the increased power and influence of the elites of Arslantepe itself. The previous chapters of this thesis include discussion of how evidence of central control of the economy and labour seems to increase both from Period VIII to Period VII and from the beginning to the end of Period VII itself. But using this evidence to explain the increase in number of Arslantepe-related sites in the plain from Period VIII to Period VII does not fit with the fact that this number decreases again during Period VIA when the level of economic centralisation and political power seems to be greatest (in Arslantepe terms).

As is often the case with archaeology (and even more with surveys than with excavations) the visibility of the remains can be affected by several post-depositional factors that could significantly bias our interpretations. In the case of the plain around Arslantepe there are reasons to think that alluvial deposits might have covered large part of the plain well after the Chalcolithic occupation of the mound. The nature and the chronological definition of the alluvial deposits on the Malatya plain is currently under study and it is not possible yet to say whether or not there is evidence of other Chalcolithic layers underneath it. Nevertheless, informal watching briefs carried out during the excavation of some water wells in the area surrounding the mound made clear that even in its vicinity there is a thick alluvial deposit; and, most importantly, some badly eroded ceramic fragments were found in very deep levels of these wells underneath the alluvial layers suggesting that the shape of the plain may have been changed by these alluvial events and earlier sites may have been buried. Due to their bad preservation the sherds were not easily dated but they appeared to belong to the Iron Age (Di Nocera and Ricci pers. com. 2012).

Whilst this information does not prove the existence of further occupational remains associated with Period VII in the proximity of Arslantepe, the presence of ceramic sherds underneath layers of alluvial deposit does allow us to speculate that the settlement of Arslantepe went originally beyond the visible limits of the main

mound and that the pattern of occupation of the plain might have been more intensive than our current evidence suggests. Clearly further surveys and analysis of the alluvial deposits surrounding Arslantepe are needed in order to better understand the hinterland of the site during Period VII.

Comparisons between ceramic assemblages, their use beyond chronological synchronisation, interpreting and explaining connections.

The works carried out by Palmieri (1985), Oates and Oates (1993), Trufelli (1997), Frangipane (1993), Rova (1999-2000), Lupton (1996) and many others have made enormous progress in the definition and synchronisation of chronological sequences across whole of Mesopotamia. My main aim in reviewing the many survey projects carried out in the Upper Euphrates area alongside the new materials from Arslantepe is to consider the relationships between Arslantepe VII and other neighbouring areas and, secondly, to explore the nature of these relationships.

A comparison between ceramic fragments found in different and distant sites based largely on brief descriptions and occasional drawings can only be tentative. It is easy to appreciate the importance of such evidence of potential contacts between long past communities but at the same time this importance is somewhat diluted because the meaning of 'contact' can be in this case quite vague in its own right. Did the pottery travel as finished artefacts? Were specific types of pottery produced by the same potter/workshops and traded across wide areas? Or maybe the pottery did not travel at all and the people producing and/or using the pottery shared cultural traits and had common technological knowledge. There are numerous ways that these 'contacts' may have taken shape. And probably, with the current lack of specific indicators, different scenarios should be considered in different contexts and for different types of materials. The main traits shared by most of northern Mesopotamian's Late Chalcolithic sites included undecorated, chaff-faced and often mass-produced ceramics, which marked a significant change from the previous Ubaid period when the fine wares and painted decoration were the trademark of a ceramic tradition that encompassed all of Greater Mesopotamia. Late Chalcolithic pottery does not have the symbolic representative function it had

up until Ubaid period (Frangipane 1993); pottery had mainly a utilitarian function and this might have affected the way it circulated. Accepting the idea that Halaf and Ubaid ceramics 'travelled' carrying messages of social ties and identity, it seems reasonable to imagine that, given its 'simplicity' (Wengrow 2001), Late Chalcolithic pottery did not have any specific symbolic meaning and consequently the similarities visible among assemblages from different settlements are probably to be found on stylistic and technological grounds.

As already proposed by Frangipane, except for specific cases, what seems to be shared among many of the northern Mesopotamian Chalcolithic sites were a series of technological traits that determined the similarities of the pots (Frangipane 2000, 441). But implicit in this statement is also the idea that shared technologies can be evidence of a common cultural background. As shown in Sillar and Tite's work (2000) the technological stages involved in the production process of an artefact are determined by a series of 'influences' that can be both material and cultural in nature; as much as the availability of raw materials, their intrinsic characteristics, technical skills of the artisans and economic background technological choices can be affected from the very beginning of the production process by a series of social, political and ideological factors that can vary from the control over the access to specific resources to the symbolic relevance of the artefact that is being produced. Sillar (2000) highlights the interconnectedness of the many stages of a production process and how they are often intrinsically linked to reproduction of social structures that determined them. Through their daily practice artisans acknowledge and reproduce the structures within which their practices are generated and recognised. In this sense the artisan's technological choices are integral part of the social background within which they are taken. Extending these observations to 4th millennium BC northern Mesopotamia it can be argued that the similarities between the ceramic assemblages of many Chalcolithic sites could be considered as evidence of similar social structures and similar ways of organising the pottery production.

5.9 Specialists at Arslantepe

In this chapter I have attempted to provide an overview of the ceramic assemblage from Arslantepe VII presenting its main characteristics and discussing the functional typology. I then examined some of the themes related to this assemblage that I believe offer greater insight into the organisation of ceramic production and consequently into the social organisation of the community of Arslantepe VII, namely: different manufacture techniques; the significance of specific objects such as the mass-produced bowls; the presence and distribution of potters' marks and the morphologic variability in the assemblage. In the last section, in order to understand the relationships between Arslantepe VII and the surrounding territories, I have tried to discuss and redefine evidence of possible contacts and interaction between Arslantepe VII and other contemporary sites.

What has emerged from this work is an overall impression that at least some of the pots at Arslantepe VII were produced by fairly skilled and specialised potters probably employed and rewarded by individuals or sections of society that had enough resources to commission this work to be done on their behalf.

The implications of these remarks are fairly significant for the analysis of the social organisation of Arslantepe VII. As the presence of specialised craftsmen and women implies that their community is able to provide for them and this is, in turn, is indicative of a social complexity where interdependent section of the community interacted.

In the following chapter these preliminary observations will be developed through the analysis of the archaeological contexts of Arslantepe VII and the distribution of the portable artefacts across the site. This set of evidence will then be discussed together with the evidence presented so far in the overall discussion, Chapter 7.

6. Arslantepe VII. Daily practices, ‘special occasions’ and their locations

6.1 Introduction

The many decades of fieldwork at the site of Arslantepe have created a rare opportunity; exposing relatively large areas of the settlement which included buildings of different nature and functions. This situation has provided the opportunity to draw a comprehensive picture of the settlement of Arslantepe VII and its organisation in light of the social structure that influenced its formation.

In this chapter I introduce the architectural remains attributed to Arslantepe VII looking at those aspects of the archaeological record that could be used as indicators of social complexity such as the location and material construction of monumental architecture in relation to that of domestic buildings. It is my belief that such analysis can shed some light on the social and political organisation of the community of Arslantepe VII. Introducing the archaeological contexts I discuss their characteristics in terms of dimension, building technique, possible function and conditions of preservation at the time of recovery. Understanding the different natures of the buildings in Arslantepe VII is essential in order to account for the social organisation they were built by and whom for. Almost all the contexts attributed to Period VII of Arslantepe are here presented with the exception of those contexts that, due to partial excavation or poor preservation, could not be used for this analysis.

The discussion on the function and the use of the buildings is based on the comparison of layouts, dimensions and construction techniques; and an analysis of the portable materials retrieved from floors and fills. The materials found on the floors are used to identify the kind of activities that were carried out within these structures (see Section 5.2.2 for further details).

6.2 The archaeological contexts of Arslantepe VII

6.2.1 Describing the contexts

Period VII, dated from 3800 to 3350 BC, is the longest occupational phase so far excavated at Arslantepe (for radiocarbon dates from Arslantepe VII and chronological discussion see Chapter 2 and Alessio 1976, Alessio 1983, Calderoli 1994 and Di Nocera 2000). During this long period, over four hundred years, generations of inhabitants of Arslantepe built and rebuilt their houses over other previously demolished buildings. This consistency in settlement choice resulted in a significant archaeological deposit; in some parts of the mound Period VII layers are up to 14 meters high. Period VII must have represented a phase of expansion of the site as indicated by the fact that architectural remains from this period, by the northern edge of the mound, are found directly on the natural soil. Remains of Period VII architecture was excavated in almost all the areas excavated, but the most significant remains for Arslantepe VII were found on the north-eastern and western slopes of the mound as shown in Figure 6.1

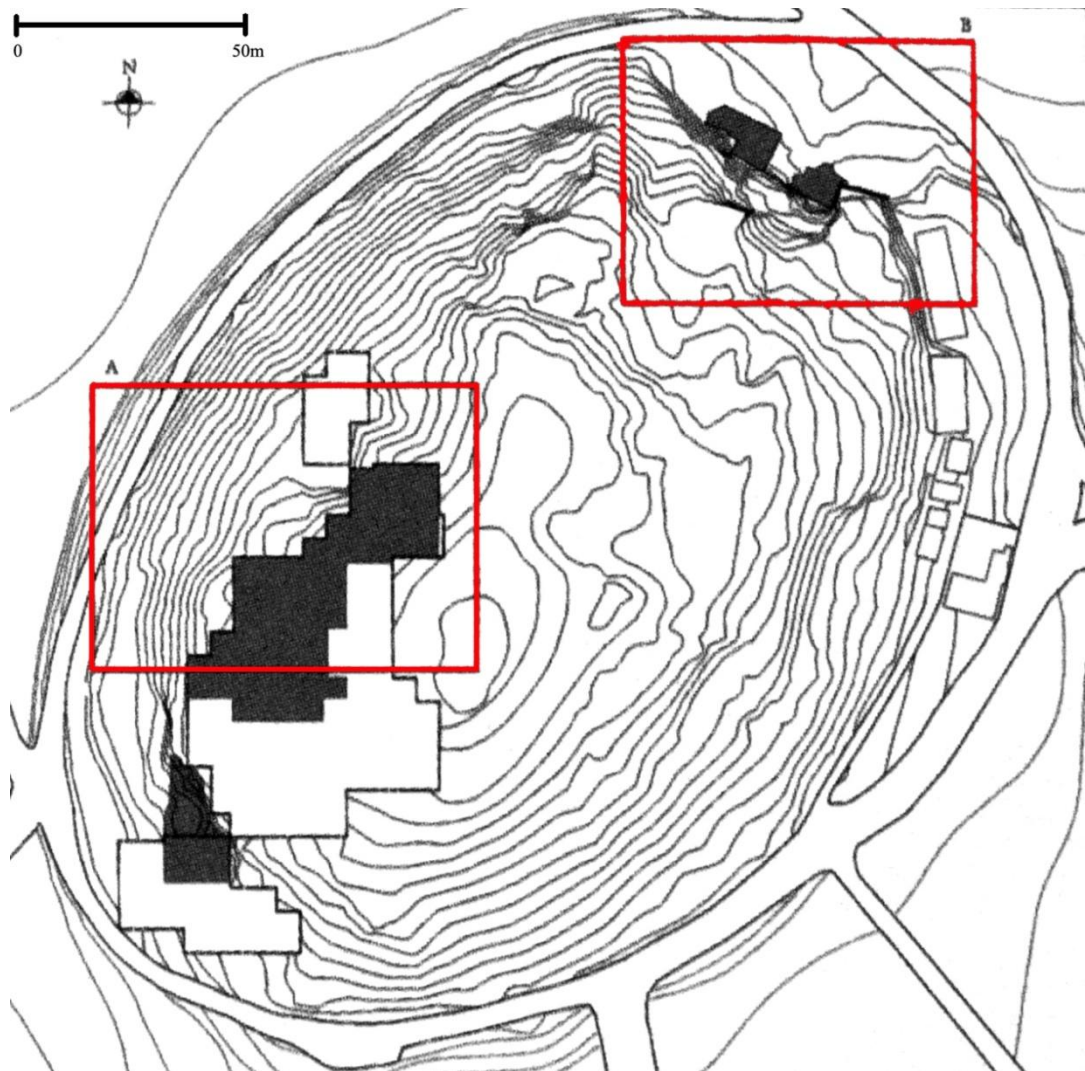


Figure 6.1 – Excavated areas of the mound including Period VII remains (after Frangipane (ed.) 2004, pp. 29).

In the following pages I provide a description of the buildings so far excavated in these two main areas of the mound. A comparison of the architectural remains is used to distinguish between domestic and non-domestic buildings and particularly the potential use of the latter is crucial to discuss the nature of social complexity in the settlement of Arslantepe VII.

6.2.2 Evidence of artefacts consumption: methods for sampling the contexts

In order to define the possible functional differences among the sampled contexts I analyse the differential distribution of artefacts. As Turkon (2004) has pointed out, within complex communities the ways and extent to which people are involved in daily activities will differ according to their social status, amongst other

factors. Therefore, ceremonial functions, administrative practices, redistributive activities and so forth imply a reduced involvement of functionaries, or high status people in general, in the daily practices of food transformation and preparation (see Chapters 4 and 7). These differences are reflected within the archaeological remains of the contexts where particular activities were performed. The analysis of the differential distribution of *in situ* artefacts throughout the site should allow the identification of the function of different contexts. According to this approach domestic contexts should be characterised by a more varied assemblage of artefacts to reflect the wide range of activities carried out in a household (e.g. food preparation; storage; consumption; textile production; leather working; tool production and maintenance). All these activities could potentially be detected in the archaeological record through the presence of specific artefacts such as grinding stones, cooking pots, storage jars, serving and drinking vessels, spindle whorls, needles, stone tools and debitage. Conversely areas where functionaries and high status people acted may yield artefacts and remains that reflected their specific activities. Therefore, administrative tools such as clay sealings; large concentrations of serving vessels; large scale storage and or cooking facilities; prestige goods; exotic materials and so on are expected to be found in high status residencies or 'special purpose' buildings.

In the present chapter this interpretive approach is combined with the analysis of structural characteristics of the different buildings and specific features such as ovens, cooking ranges, benches, niches which will help to further define the way these buildings were used.

According to the degree of preservation of the archaeological contexts it should then be possible to detect indicators of status or information about the social organisation of the community through the analysis of patterns of consumption of artefacts related to different activities.

For this research, only a minimum number of vessels is considered; to do so all the complete or near complete vessels have been quantified, as have those fragments that are statistically representative of whole vessels (i.e. the fragments

comprise the complete base of a bowl, or the full circumference of rims-necks of jars), but individual body or rim fragments are not quantified as complete vessels even if the vessel form can be identified. In the case of some of contexts discussed below all the diagnostic fragments are also presented and organised in separate charts which are specifically labelled with 'all diagnostics' in the title in order to avoid any confusion with the charts presenting actual number of vessels that are labelled with name of the context only and the acronym MNV which stands for Minimum Number of Vessels.

At the end of each section, whenever reasonable, the vessels from all the rooms belonging to the same building were combined in a single chart in the attempt to allow for further insight into the activities carried out within the whole building.

Although non-ceramic artefacts are not within the specific focus of this thesis their presence in the contexts analysed here is detailed according to the information available at the moment. The artefacts from Arslantepe VII are currently being studied for a forthcoming publication. Most of the data regarding stone artefacts and tools related to textile production was gathered through personal communications with Daniela Zampetti, Cristina Lemorini and Romina Laurito (University of Rome 'La Sapienza') and at the presentation of their papers during a workshop on Arslantepe VII held in Rome in March 2012.

6.3 The north-eastern sector: excavations from the 1960-70s

6.3.1 The contexts: a domestic quarter

Excavation on the north eastern slope of the mound took place in the late 1960s. Under the field direction of Alba Palmieri the Italian team uncovered ten super-imposed phases of building construction attributed to Period VII (Figure 6.2).

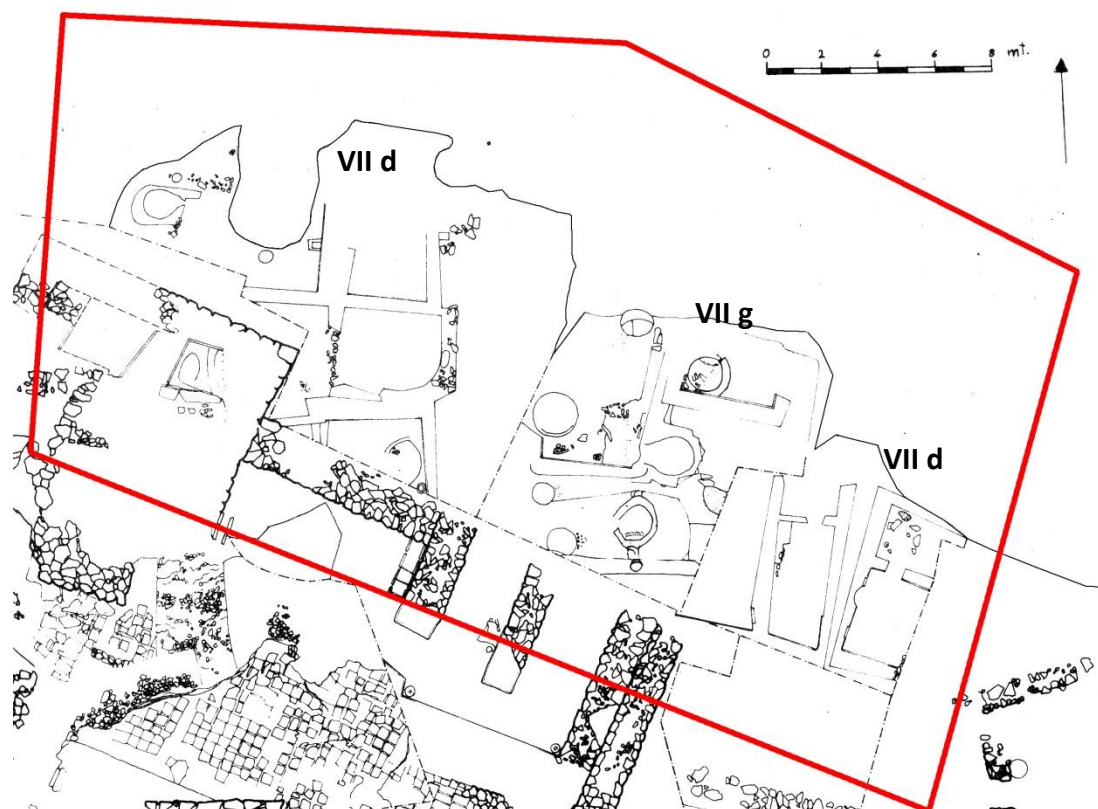


Figure 6.2 – Period VII remains in the north-eastern edge of the mound¹

These were indicated in the records with lowercase letters from 'a' to 'l' where the 'l' is the earliest phase found at the bottom of the sequence directly above the natural deposit. The remains of phases 'a' to 'd' and 'g' were published (Palmieri 1969; 1972; 1978) but information about the structures from the other phases (e to l) are taken from plans, sections and some scanty field notes recently found in the archive of the Italian Expedition of Arslantepe (at the University of Rome 'La Sapienza').

¹ Unless differently stated the plans presented in this chapter were prepared by myself using as a base the raster images or the original drawings from Arslantepe archives belonging to the Missione Archeologica Italiana in Anatolia Orientale – Rome University La Sapienza).

The buildings uncovered in the north-eastern slope shared similar characteristics across the whole sequence; they were all built from mud-bricks; some of them had stone foundations; the use of white plaster for walls and floors was common and some of the structures revealed traces of wall painting with geometric patterns or more simply red or black coloured plaster.

Unfortunately the only information available for **phase 'i'** included a note with a generic indication of the presence of a domestic structure with white plaster, more detailed records or plans were not found. **Phases 'h' and 'i'**, described jointly in the field notes, were excavated only in a small area towards the north-eastern limit of the excavation which coincided with the edge of the mound itself; the remains of this phase included a rectangular structure, 3.45 metres long and 2.5 metres wide, with walls built in mud-bricks that did not have any visible foundation. Next to this building was a smaller and less defined one. The walls of the two structures running side by side were 0.5 meters thick. In both of them floors and walls were lined with thin white plaster. The rectangular structure had a circular platform made of mud and lined with plaster. The graphic records for these architectural remains were not found.

The only indication useful to locate this structure in the excavation area is a note saying that these remains were found underneath the 'large triple wall'. Looking at the available records from phase 'g' it appears that, towards the north-eastern limit of the excavated area, a wall with three rows of bricks was recorded and we believe that this is the 'large triple wall' above the structures of phase 'h' and 'i'.

Phase 'g', briefly mentioned in an excavation report by Alba Palmieri (1972), was excavated in a wider area that stretched between the buildings belonging to phase 'd' to the east and the west side, to the south there was the limit of the excavation itself and to the north the area was limited by the eroded edge of the mound. The buildings found in this area included four main areas delimited by a series of mud-bricks walls on foundations (the note is not more specific, but I assume the archaeologist is referring to stone foundations) (Figure 6.3).

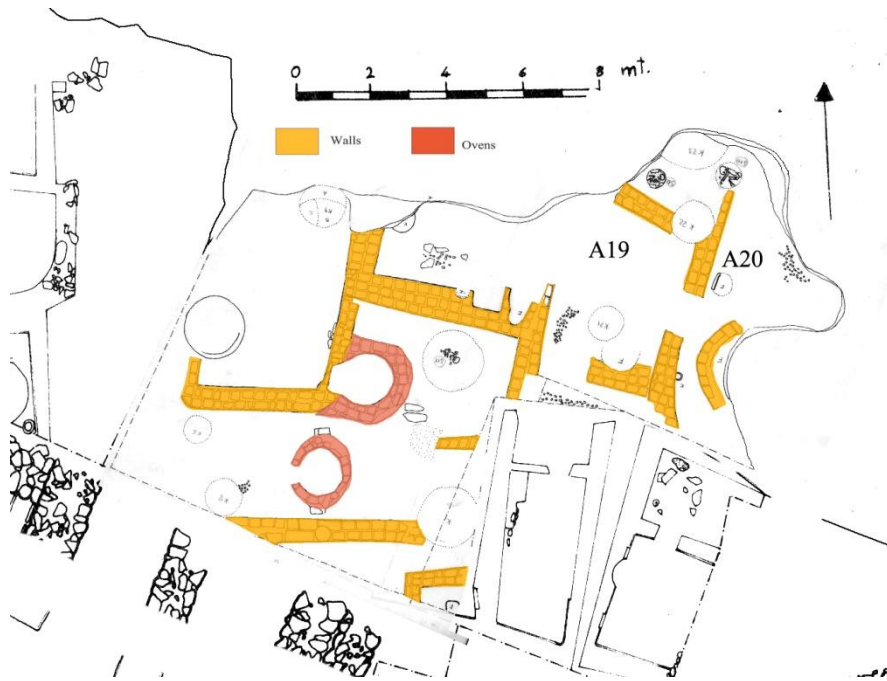


Figure 6.3 – Phase VIIg

In two of these areas, two large circular ovens were found. These were also made with mud-bricks and were almost two meters in diameter; interestingly, one of these ovens is built into one room but opens into an adjacent room; this seems to suggest that the whole complex of structures were functionally interconnected and purposefully built. Originally the area must have extended further north as shown by the fact that some of the features belonging to it were truncated by the natural erosion of the edge of the mound.

The remains of **phases 'f' and 'e'** consisted of two superimposed structures with exactly the same orientation as the structures of phase 'g' but are progressively shifted towards the centre of the mound. This progression southward is more evident when overlapping the plans of phases 'g' and 'f' buildings as they have similar layout and identical orientation but the later phase was built about 0.3 meters further south. Both phases 'e' and 'f' structures consisted of what looks like a rather simple rectangular building possibly divided into two areas by a partition wall (Figure 6.4).² In both cases the thin walls were made with mud-bricks. The notes on phase 'e' report of a layer of burnt rubble with ashes and burnt mud-bricks, a large fragment of clay and iron was found. The foundations of phase 'e'

² Phase 'e' plans are not available.

were built on the fill and demolition layer related to phase 'f', this fill was described as another layer of ashes and charcoal.

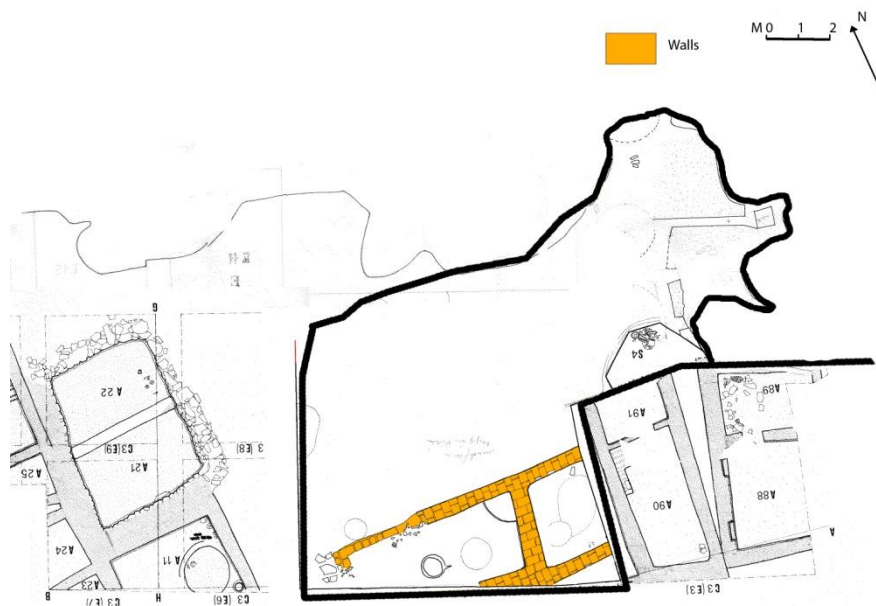


Figure 6.4 – Phase VIII

Phase 'd' remains were the best preserved in the north-eastern sequence. Two groups of buildings were recovered at the east and west end of the excavated area (Figure 6.5). These consisted of two complexes of slightly different nature. On the easternmost part of the area there were three rectangular structures (roughly 2.5 to 3 meters wide and about 6 meters long) with a partition wall that divided the inner space in two rooms of different size. Two of these buildings (A90-91 and A92) were parallel and followed a north-south orientation. The third building (A88-89) had a slightly different orientation and was partially truncated by A91. This stratigraphic relation was interpreted by Palmieri as evidence for the presence of two sub-phases within phase 'd' (Palmieri 1978, 10-11).



Figure 6.5: Phase VIIId

In the oldest of the three structures all the walls were plastered with white mud and along the western long wall in the larger of the two rooms (A88) two small niches were also found. In the smaller room (A89) heavy stone tools such as grinding stones and pestles were found *in situ*, as well as a clay andiron. Also in the more recent structures (A90-92) all the internal walls and floors were plastered with white mud. In room A92 were found the remains of a large circular oven. On the wall at the southern end of the room several layers of painted plaster were recovered; in the earliest phase the wall was decorated with black triangles painted on a white background whilst at the end of the sequence there were some linear patterns painted in red and white on a black background.

At the western end of the excavated area were the remains of another building belonging to phase 'd'. This consisted of about seven rooms of which A21, A22 and A12 were entirely excavated. The rooms layout was roughly rectangular, and were built with mud-bricks over stone foundations. The other four rooms, A11 and A23-A26 were only partially excavated and their layout remains uncertain. Room A11 had a circular concave clay basin sunk in the plastered floor; A12 had small square

clay feature abutted to the eastern wall which was painted with red and black lines on a white background; finally a circular oven (roughly two meters in diameter) was found at the western end of the room. Rooms A21 and A22 were found underneath the sinking floors of A9 and A10 (possibly belonging to a late sub-phase of phase d) they were semi-subterranean as they were cut into earlier deposits, the cut was supported by large stones which were then plastered together with the floor in exactly the same fashion as all the other structures of this phase. Together with all the other related structures, A21 and A22 were destroyed by a fire and were filled up with the rubble and debris from the fire. Structures A10 and A9 were then built on top of the rubble respecting the layout and orientation of the semi-subterranean structures and using their thick stone walls as solid foundations for the new mud-brick walls.

Remains of **phase c** comprised one isolated rectangular structure built in mud-bricks on stone foundations, the structure was 4.75 meters long and 3.75 meters wide, the walls were roughly 0.75 meters thick. No information remains regarding the treatment of the walls. Palmieri's excavation notes record that the floor was not plastered and was identified as surface of compacted mud. In the middle of the room there was a small circular pit.

Remains of **phases 'b' and 'a'** were very fragmentary, only small truncated sections of small stone walls, probably the remains of foundations for mud-brick walls, and some rubbish pits were attributed to these last two phases of the sequence.

The sequence described above shows remarkable signs of continuity throughout the 400 or more years of Period VII. The building techniques are consistent through the whole sequence as well as the finishing details such as the wall and floor plastering. The wall paintings and the niches in the rooms of phase 'd' might indicate the application of extra care and attention to the realisation of these walls but, painted decoration was a relatively common feature in Late Chalcolithic buildings in Arslantepe and also in another Late Chalcolithic site like Norşuntepe in the Altınova plain (Hauptmann 1979; 1982; Palmieri 1978, 11). Due to the limited

dimension of the excavated area in the north-eastern sector it is not easy to infer either the function of the structures or how the spaces between the buildings were used. As far as phase 'd' and phase 'g' are concerned the presence of at least two large ovens in a relatively small area could be an indicator of some specific activity. No traces of particular industrial activity such as ceramic manufacture or metallurgy were retrieved in relation to the ovens; if then the ovens were used for baking or, more generically, cooking it would suggest that in both phases these areas could have been somehow involved in processes of food transformation; unfortunately it is hard to determine whether this activities were aimed to provide for a domestic household-scale consumption or whether they were aimed to satisfy larger social groups.

In comparisons to other Period VII buildings at the site the structures found in the north-eastern sector seem relatively small and also their construction techniques, as seen from the thickness of the walls and the occasional lack of foundation, seem more characteristic of non-monumental/domestic rather than public buildings. This impression is supported by an overview of the portable artefacts retrieved from the floors of the buildings and the fills that covered them; in room A88 for example the only artefacts found on the floors were grinding stones, pestles and mortars which seems to indicate activities of food transformation which, in turn, would match the idea that the ovens in the area were used for baking and cooking. The archaeological evidence seems to point to the existence of an area within which daily domestic activities were performed. The validity of these observations will be reconsidered after the description of the other contexts belonging to Period VII which will produce a reasonable ground for comparisons between the different buildings.

6.3.2 Analysis of the portable artefacts: utilitarian assemblage

For some of the contexts described above no records regarding the portable materials found on the floors or the fills of the different rooms are available. In the majority of the cases we can only rely on the labels used to mark the sherds and the other artefacts. This reduces our chance of distinguishing what was lying on the floors of the rooms when they were destroyed or abandoned from what was found

in the levelling deposits which could be unrelated to the life of the structure. Nonetheless, assuming that even disposed/broken artefacts did not travel far within the site, it should still be possible to extract relevant information concerning the kind of activities carried out in a specific area, looking at the general presence and distribution of different wares or functional types.

Most of the materials found in phase 'd' came from the fills of rooms A21 and A22. The two rooms were destroyed by a fire and according to the analysis of the internal stratigraphy it seems that they were filled in with structural debris and ceramic material probably coming from different contexts. This interpretation could also explain the high degree of fragmentation of the ceramic artefacts found in these rooms (Palmieri 1978, 318-9). For this reason I decided to analyse the assemblages of the two contexts and consider the differences between all the diagnostic fragments in the first instance and only then consider the full profile pots in as shown in the following graphs (Figures 6.6 and 6.7). The letters "s", "m" and "l" in all the following charts stand respectively for "small", "medium" and "large".

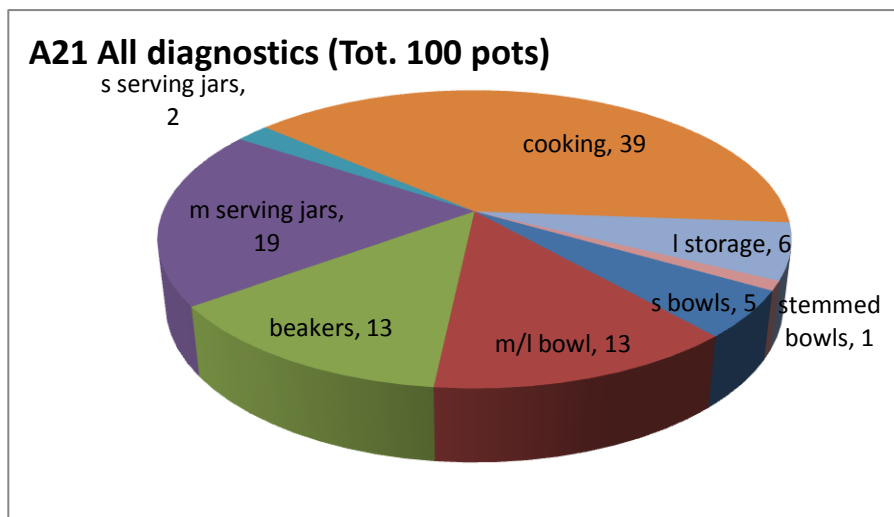


Figure 6.6 – A21 pottery distribution (all diagnostics).

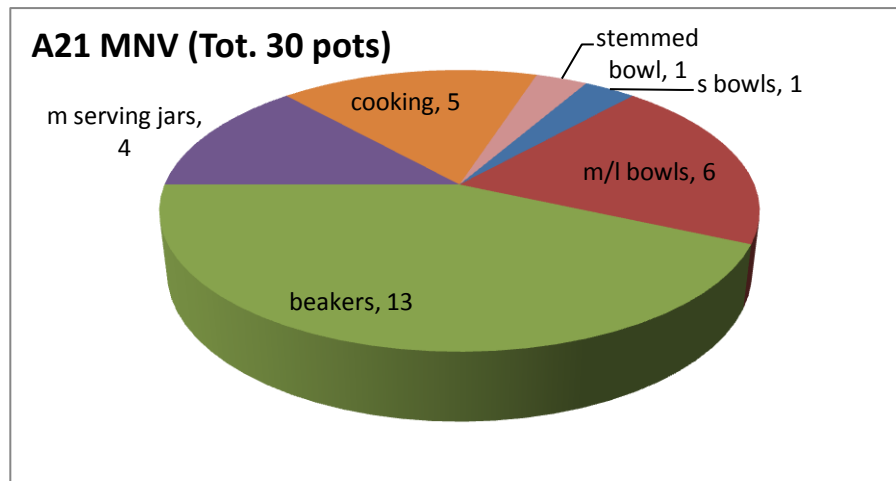


Figure 6.7 - A21 pottery distribution (Minimum Number of Vessels)

The main, most obvious difference between the two graphs is in the significant reduction of the sampled population in the second; it is not surprising that the smallest objects (beakers) have a smaller degree of fragmentation. Some of the functional categories like large storage jars and small serving jars disappear from the assemblage. In both cases the observation of the functional categories presents in A21 seems to suggest that the main activities carried out in the area were related to preparation and consumption of food. It is important to underline the absence of large storage jars and the frequency of medium or large bowls compared to the near absence of small bowls. This raises questions about the dynamics of food consumption and commensality in this particular area of the settlement.

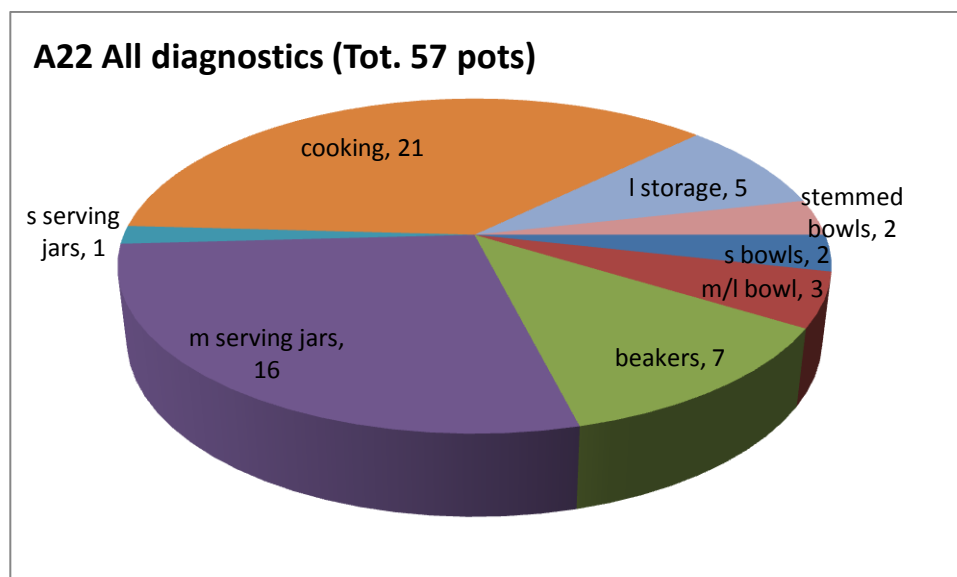


Figure 6.8 - A22 pottery distribution (all diagnostics)

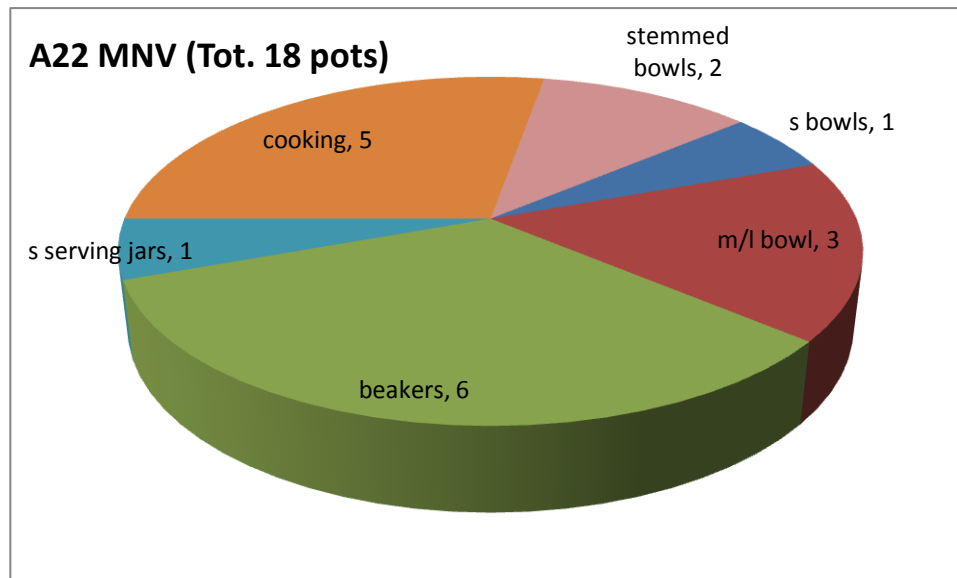


Figure 6.9 - A22 pottery distribution (Minimum Number of Vessels)

A similar trend is shown by the charts above (Figures 6.8 and 6.9), which describe the materials found in A22. Food processing and consuming seem to be the main activities whilst storage using ceramics does not seem to be practised in this part of the settlement. As much as in A21 the large bowls or basins are more frequent than the small 'individual' bowls. This is of some interest if viewed in light of other contexts of Period VII where the small bowls represent the most common artefact. It appears that carinated beakers were the main ceramic form used for the individual consumption in these contexts from phase 'd'. And although their low degree of fragmentation creates a slight sampling bias, they still represent a conspicuous group of artefacts. Finally, looking at the charts where all the diagnostic fragments were taken into account, cooking pots seem to prevail over all the other classes while medium sizes serving or storage jars have a significant presence.

Alongside the ceramic vessels described above several flint blades and bone spindle whorls were also found on the floors and levelling deposits of A21 and A22. The analysis carried on some of the blades suggested that they had been used to cut non siliceous vegetable materials such as fresh grass or similar (Lemorini Pers. Com. 2012).

As concerns the contexts of phase VII 'd': on the floor of building 25 a small handmade cooking pot was found alongside a handful of other fragments of kitchen ware. Fragments of another cooking pot were also found on the floor of A23 and on the floor of room A88, as already mentioned, were several stone tools, grinding stones and pestles but no ceramics were recovered. Considering that most of the structures around A21 and A22 did not yield any artefacts it seems reasonable to think that when the whole area was levelled up prior to its reconstruction (phase VII c) the debris and artefacts remains were used to fill up the semi-subterranean spaces of A21 and A22.

In the attempt to verify whether the materials from the two rooms are representative for the activities carried out in the whole area the vessels from rooms A21 and A22 should be combined as shown in the two following charts (Figs 6.10 and 6.11).

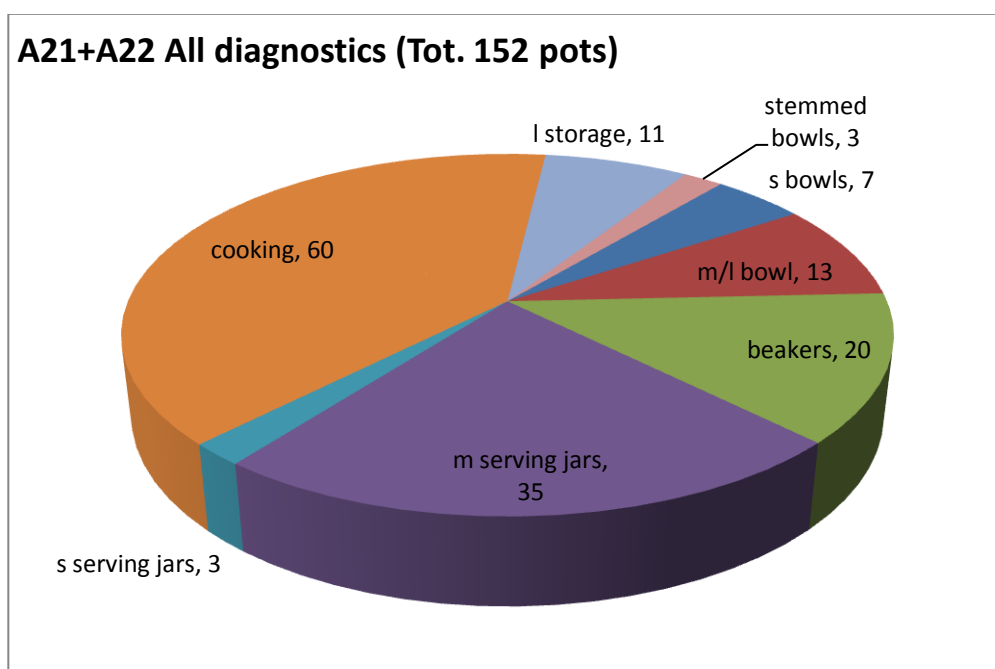


Figure 6.10 – A21+A22 pottery distribution (all diagnostics)

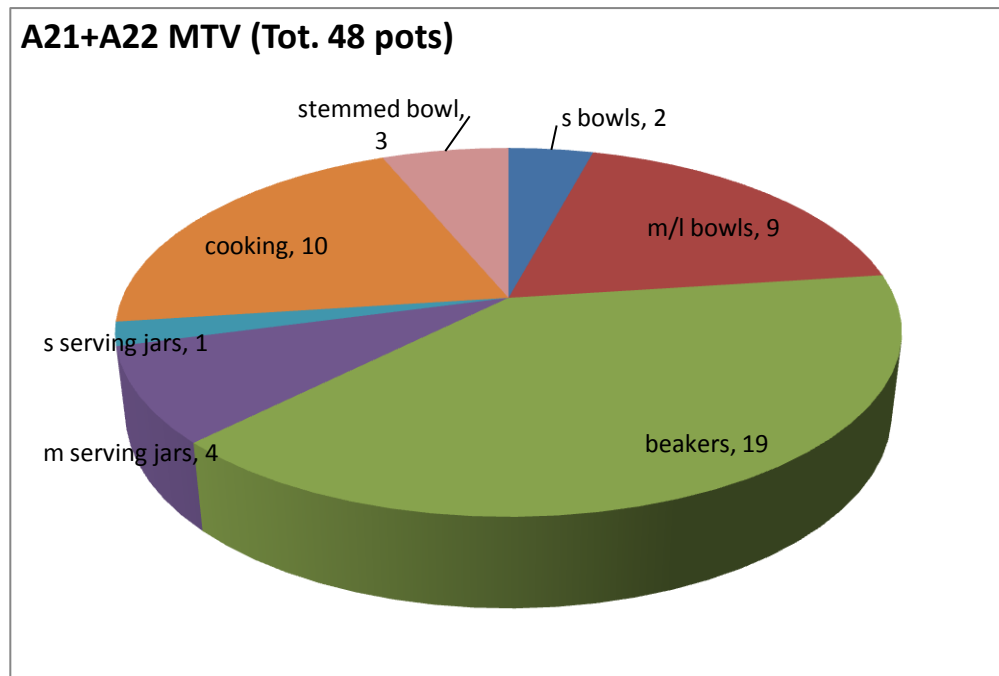


Figure 6.11 – A21+A22 pottery distribution (Minimum Number of Vessels)

These two charts show the same patterns identified in the pottery distribution of A21 and A22. Indeed the charts presented above separated by rooms (Figs 6.6 to 6.9) were relatively similar between them and the combination of the vessels from the two rooms has effectively increased the size of the sample and therefore its statistic reliability. Nonetheless because of the similarities between the two rooms it remains impossible to suggest whether their assemblage is only representative of their specific use or of the whole area.

Another phase with substantial architectural remains is phase g. As mentioned above the remains of this phase include a series of rooms with at least two large ovens. The ceramic materials recovered from the floors and fills associated with these buildings reveal a trend which is extremely similar to that observed for the structures of phase 'd' (see graphs in Figures 6.12 and 6.13).

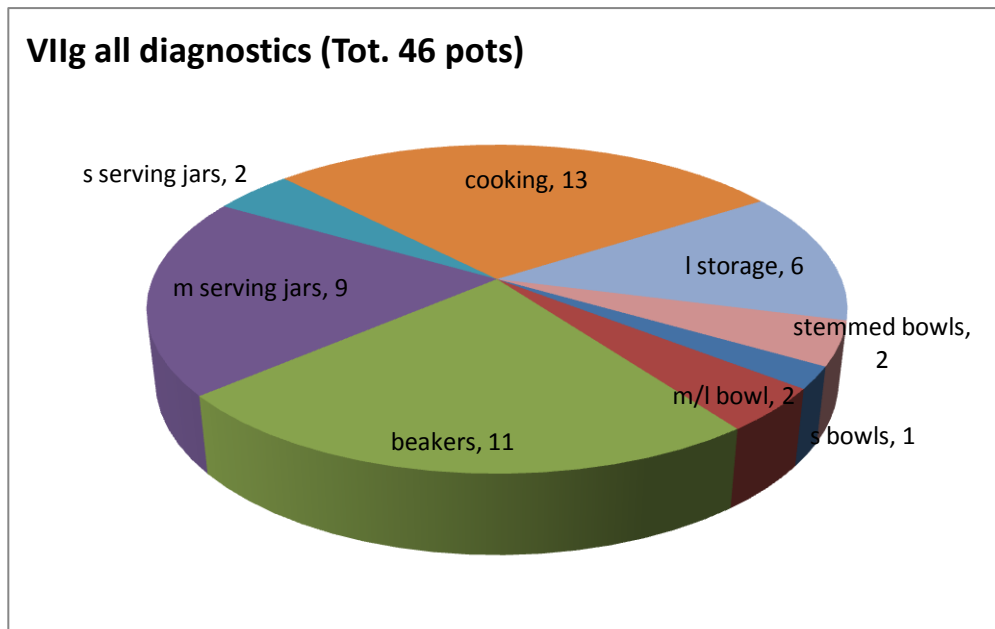


Figure 6.12 – Phase VIIg pottery distribution (all diagnostics)

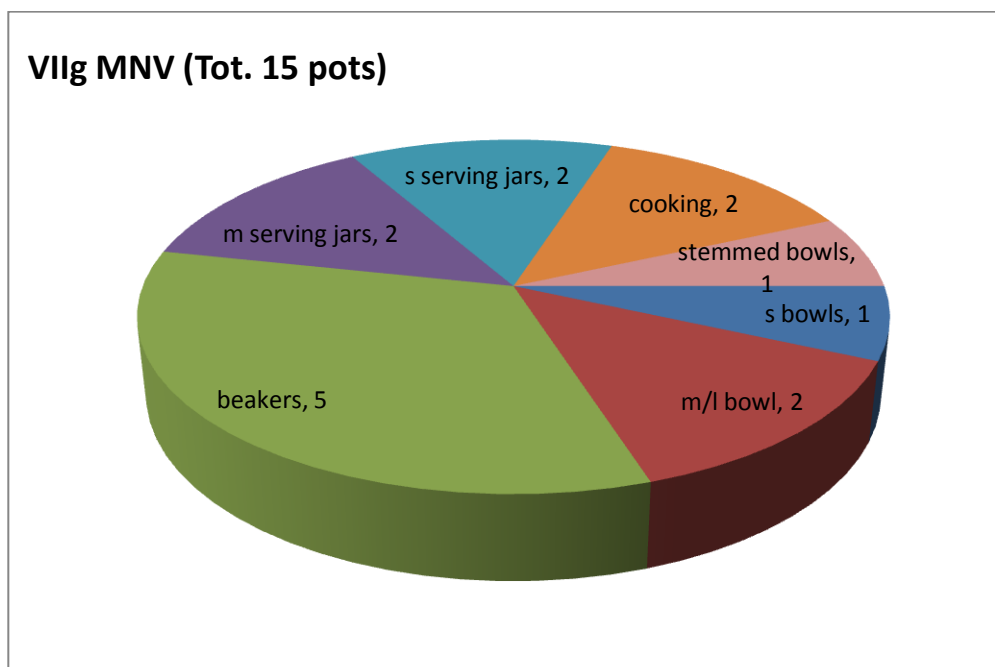


Figure 6.13 – Phase VIIg pottery distribution (Minimum Number of Vessels)

As expected in a domestic environment (Turkon 2004) the assemblages are quite varied, there is still a prevalence of small serving vessels, cooking pots, and serving jar but there is no sign of specialised activities and preparation and consumption of food on a daily basis seem to be the main activities carried out with the ceramics in the rooms of phase g.

Unfortunately we do not have any indication of the exact provenience of the materials belonging to the remaining phases of Period VII as excavated in the north-eastern sector; therefore we are not able to make any observation on the possible functions of the structures. Nonetheless, the analysis of the ceramic materials from these phases could still be informative of the possible activities performed in this part of the mound across time. The following histograms (Figures 6.14 and 6.15) show the distribution of functional types across the nine phases recorded in the north-eastern sector (phase 'a' did not yield enough ceramic artefacts to be included in these histograms).

A brief look at the histograms reveals a high variety of functional types that is characteristic of all the phases in this part of the settlement; there is no perceptible evidence of specific activities beyond the basic domestic activities of food preparation and consumption and, in some cases, storage.

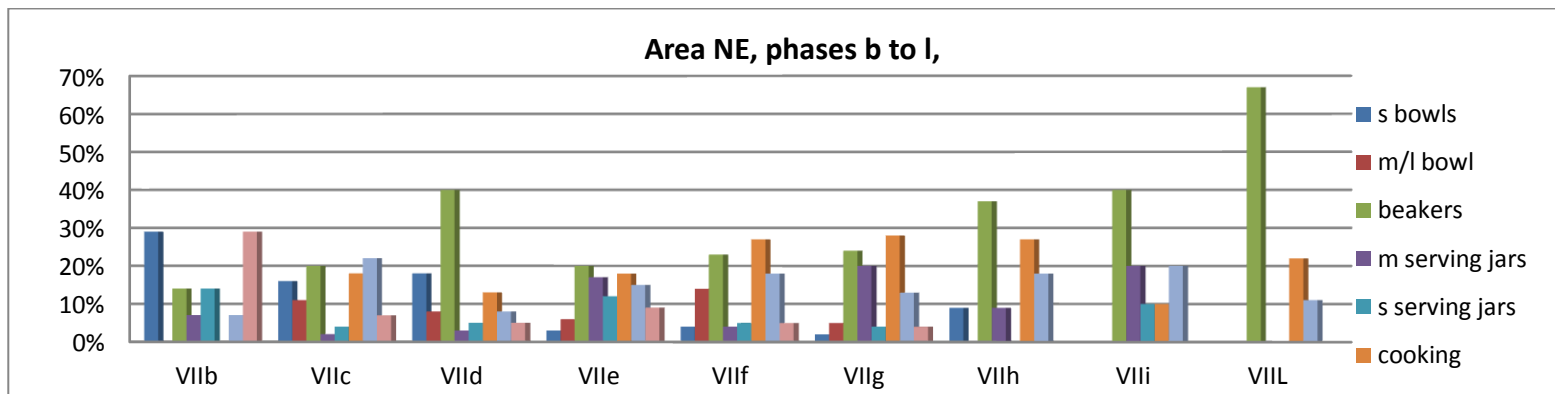


Figure 6.14 – Ceramic assemblage from north-eastern Area grouped by phases Minimum Number of vessels

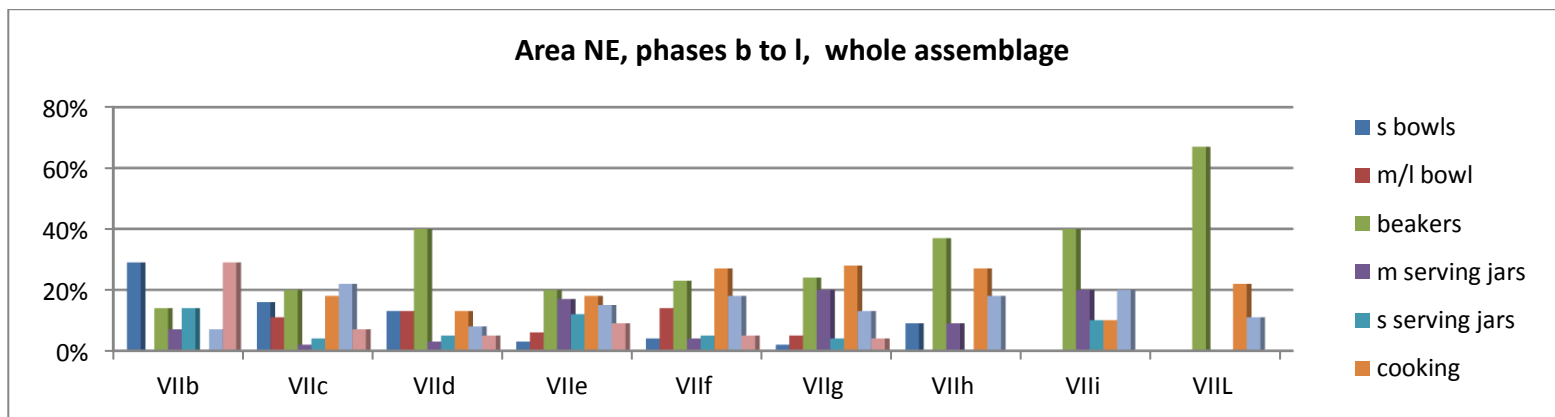


Figure 6.15 – Ceramic assemblage from north-eastern Area grouped by phases

The overview of the distribution of portable materials in the various contexts of the north-eastern sector matches the architectural evidence described above and seems to confirm that the structures excavated in this area were mainly domestic in nature and the activities performed in them were related to small scale food preparation and consumption. This preliminary interpretation is further supported by the comparison with other structures from the western area of Arslantepe described in the following sections.

6.4 The western slope, phases 1 and 2: first signs of social differentiation

The excavations in the western slope were carried out from 1989 until 2002 in an area of over 1250 square meters. The complex stratigraphy of the western slope excavations was recently reassessed (Alvaro 2010); the remains attributed to Period VII were divided into three major phases. The earliest of these phases (phase 1) was subdivided in two sub-phases. Phase 1 and 2 are roughly contemporaneous to some of the structures excavated on the north-eastern sector; according to the radiocarbon dates available for Period VII rooms A21 and A11 (both phase VII 'd' in the north-eastern sector) provided slightly later dates than A617 and A582 (described in the following paragraph). For this reason we are inclined to think that phases 'e' to 'g' of the north-eastern area might correspond chronologically to the long lasting phase 1 in the western slope; and that phase 'd' could be considered contemporaneous to phase 2 of the western slope (See Table 2.2).

6.4.1 Phase 1: early monumentality, the 'elite residences'

The earliest of these phases, **Phase 1**, consisted of a complex of buildings of remarkable size, which, together with certain features, have led to their being defined as 'monumental' (Frangipane 1993, 1996). The architectural remains of the earliest sub-phase consisted of a large rectangular open plan space with a south-west/north-east orientation; this was labelled as Building XXV (Figure 6.16).

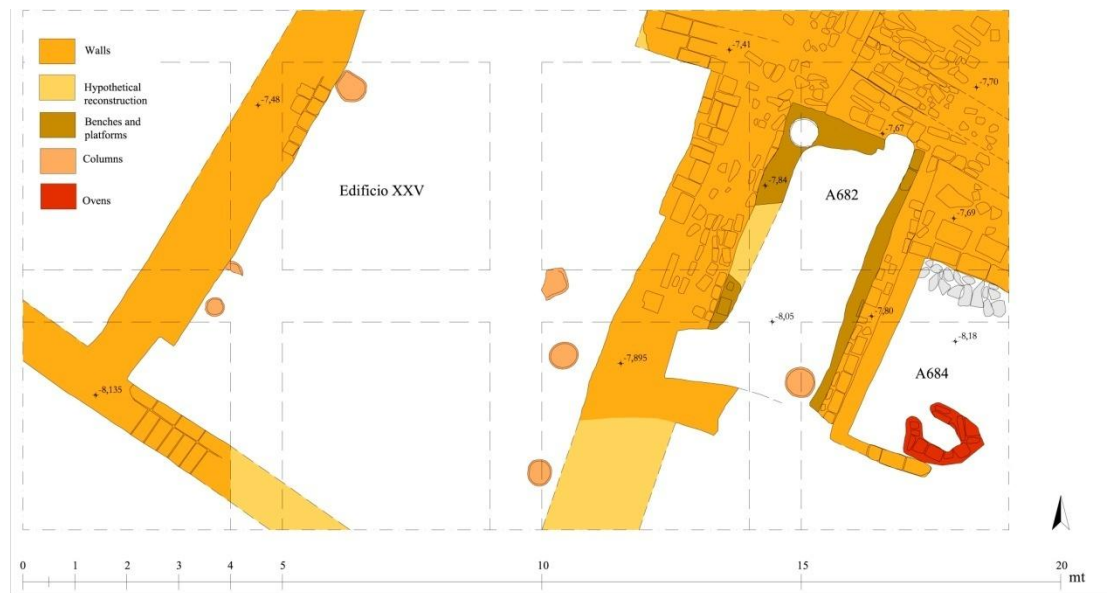


Figure 6.16 – Phase 1, Building XXV (adapted from Liberotti 2007 – Fig. 1)

The internal space of the building was 11 meters long and seven meters wide and the walls were up to two meters thick. Although most of the internal features of this building were probably removed by the refurbishment carried out in a second phase of the room use at least four cylindrical mud-brick columns with stone base were reused. To the south-east of this large room were two smaller structures, A682 and A684, similar in layout, size and internal features to some of the structures of phase 'd' found in the north-eastern sector. A682 was a rectangular room, six meters long and three meters wide, a series of mud-brick benches along the walls and a mud-brick column in the south corner characterised the internal space of the room; a large storage jar was inserted in one of these benches in the north corner of the room; all internal walls, the floor and features of the room were plastered white. To the south-east of A682 was A684, just slightly shorter than the former structure A684 did not have any benches or columns, the internal space is dominated instead by a large circular oven two meters in diameter, this closely resembled the ovens uncovered in the north-eastern area in the structures of phases 'd' and 'g'.

Following a structural refurbishment of the building, in a second phase of use, the main space was divided lengthwise by a substantial partition wall which created two main rooms A582 (8m x 4m) and A617 (7.5m x 3.5m) and a smaller wall that created rooms A647 (3m x 3m) and A622 (2m x 3m) to the south of the aforementioned main rooms (Figure 6.17).

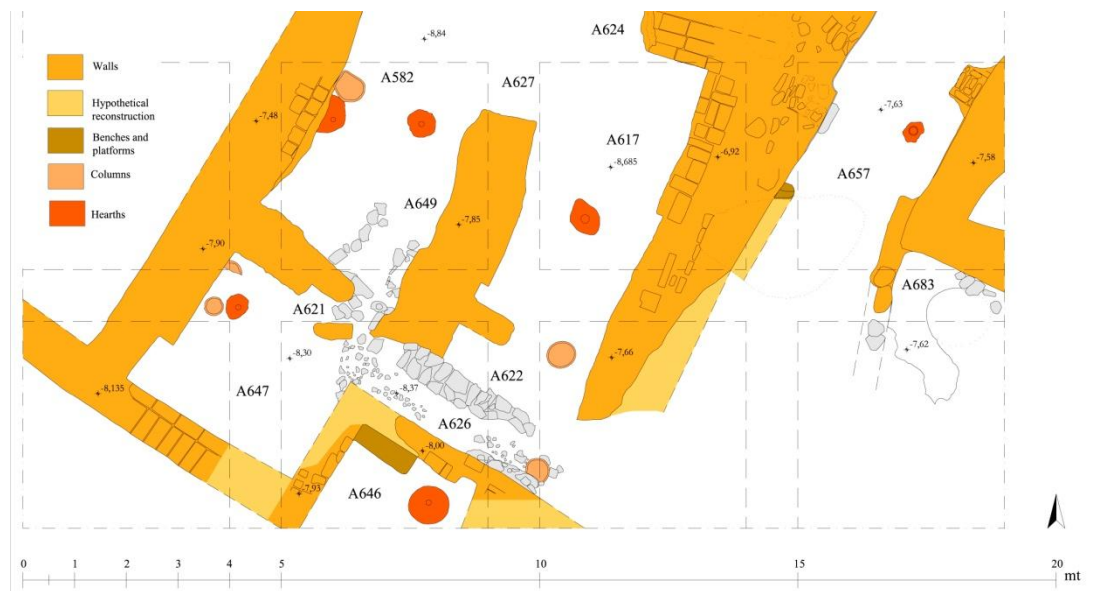


Figure 6.17 – Phase 1, A617-682 (adapted after Liberotti 2007 – Fig. 2)

The walls of this complex were preserved up to one meter in height; these were plastered in white mud and in some areas there were traces of painted decoration. The four columns already seen in Building XXV were kept, in this phase, one in each room; they were made of mud or mud-bricks and plastered over, one of them had a stone base, and they were normally found near hearths which were made by simple dips in the floors. In this second phase of use A682 is truncated by room A657 which respected the orientation and the layout of the former room and presented some interesting internal features like a fireplace which consisted of a hard mud surface (probably hardened by the action of fire) and a circular hearth; two andirons were found on the hard surface while a small bowl was sunk in the middle of the hearth

as an ash collector. Along the west wall of A657, which partly re-used the underlying wall of A682, there was a small trapezoidal mud-made bench.

From the fills and the floors of this complex of structures a wealth of portable materials was retrieved including several large storage jars but also beakers and bowls, grinding stones, and objects that have been interpreted as symbolically highly charged like a so-called 'hut symbol'. Compared to the other buildings described so far Building XXV is significantly larger, its dimensions and the internal features are all indicative of large amount of time and effort invested in the construction and finishing of this structure. Its function is hard to deduce but the 'open plan' space of the original construction seems to suggest that there was the intention to create a structure with enough internal space to host or entertain a large number of people at the same time. In 1996 Frangipane interpreted this building as possible "*elite dwelling*" (Frangipane 1996), due to the fact that the dimensions of the room compared to other contemporary contexts (see the excavation in the north-eastern area) and the presence of some features like the decorative columns pointed at the 'particular' nature of the structure which nonetheless did not provide any evidence of public activities such as administration or redistribution.

Analysis of the portable artefacts: storage facilities

As mentioned earlier the structure was at some point refurbished and internally sub-divided to fit a different purpose from the original. In this process, as the floors of the original building were re-plastered, the portable materials associated with the first phase of use were removed. Interestingly though, the two larger rooms belonging to the second phase of use, A582 and A617 were found full of artefacts which included a large amount of vessels, of different form and size, among which a concentration of large storage jars stood out.

Very much like in the contexts excavated in the north-eastern area, in A617 a variety of vessels were found, but the incidences of the functional classes is significantly different from before (see graphs in Figures 6.18 and 6.19). The number of large jars seems to suggest that storage was the main activity carried out in this room. Along with this it is interesting to note that the amount of serving jars is also relatively high if compared with the total amount of vessels that could have been used for consumption of food like small bowls or even beakers that were predominant in the north-eastern contexts. Food preparation activities were probably performed here as suggested by the presence of a fire place associated with clay andirons (See Frangipane 1993, Figure 7.2) and cooking pots. The presence of grinding stones, stone pestles, bone chisels and spindle whorl in A617 is indicative of a variety of activities carried out in the room. And apart from a 'hut symbol' (Frangipane 1993, 142, Figure 7.1) no other artefact pointed at specific activities normally associated with ritual contexts.

If we consider the materials originating from the floors together with those from the fills the overall proportions among the functional classes does not seem to change much. Only vessels used for consumption of food increased in number. If these vessels were part of the assemblage used within the room it could be suggested that, at the time of the collapse of the building, they were stored on shelves or benches raised from the floor level.

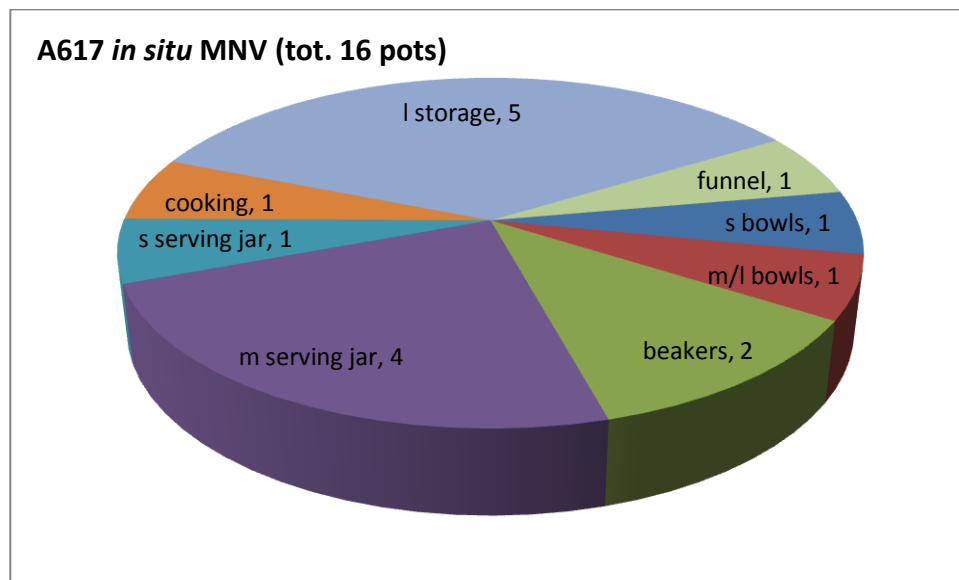


Figure 6.18 – A617 ceramic distribution (*in situ* materials - Minimum Number of Vessels)

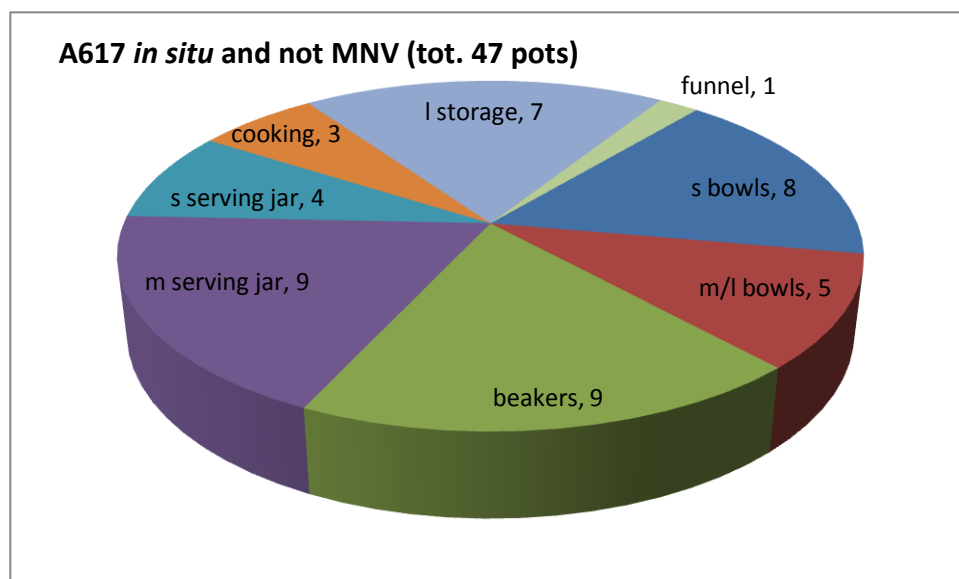


Figure 6.19 – A617 ceramic distribution (*in situ* and not - Minimum Number of Vessels)

In contrast with A617 is the assemblage retrieved from the floor of room A582 (Figures 6.20 and 6.21) which is clearly more orientated towards cooking and consumption of food rather than storage.

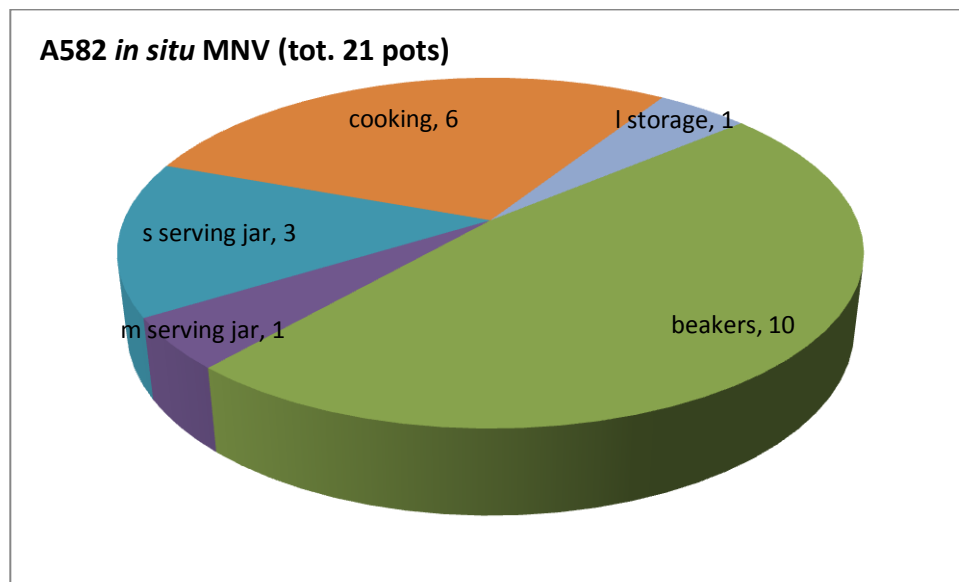


Figure 6.20 – A582 ceramic distribution (*in situ* - Minimum Number of Vessels)

Bowls were not found on the floor of A582, but they are present in the deposits above the floor (rather than on the floor itself) which again could indicate that they were kept somewhere above the floor level. Mainly large bowls or basins were found, these were probably used for communal consumption or food preparation rather than individual consumption.

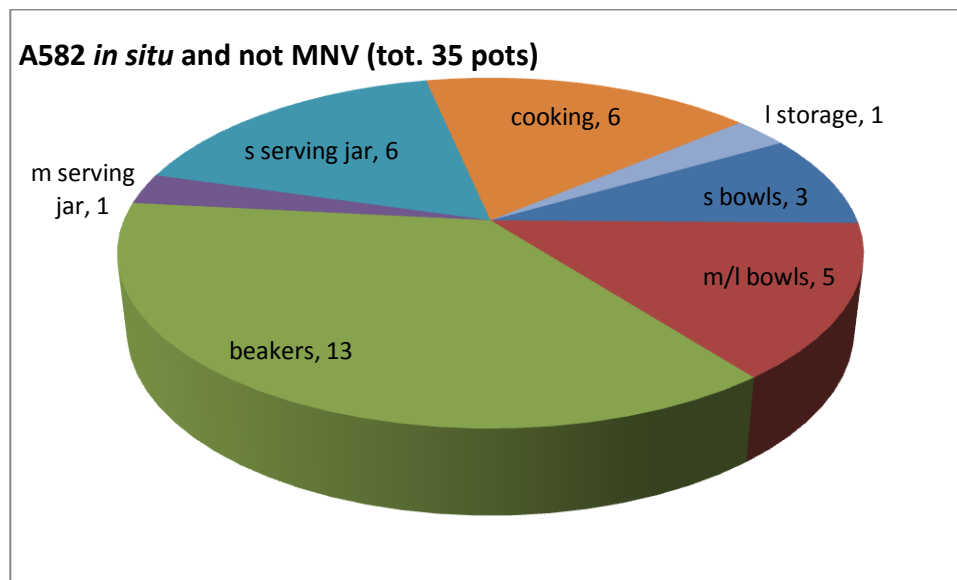


Figure 6.21 – A582 ceramic distribution (*in situ* and not - Minimum Number of Vessels)

Two further large bowls were found on the floor of the space between the two rooms A852 and A617, A624. The two rooms to the south of the complex A621, A622 and A626 were relatively small and contained a limited amount of materials. A small serving jar and a cooking pot were found in A622 and A626, two small areas located immediately to the south of A617. Interestingly from A621 came some fragments of one of the large storage jars found in A617 (Drawing n. 302-91).

As briefly mentioned above, the remarkable number of ceramic artefacts from A617 and A582 needs to be combined with a number of non-ceramic tools recovered from their floors and levelling deposits. A number of spindle whorls, bone pins and chisels, over 50 flint blades, scrapers and retouched flakes as well as over 20 other objects including pestles and grinding stones were found. According to Lemorini's analysis (as presented at Rome's workshop on Arslantepe VII – March 2012) the flint tools were used to cut both siliceous and non-siliceous plants, scrape hides and work soft stone and bones. This reinforces the idea expressed earlier that several practical activities could have been carried out in this area and it also seems

to confirm the hypothesis (Frangipane 1993, 139-42) that the architectural changes in the later phase of these structures (see above for details) coincided with a change in their function compared to the previous sub-phase when the large columned room was more likely to have had some sort of official or ceremonial use.

Due to their stratigraphic position, A682 and A684, to the east of A617, might have been in use with both the sub-phases of the main complex discussed so far, but A682 was eventually levelled up and obliterated by the construction of A657, which was presumably connected with the last phase of use of this complex. On the floor of A682 only three large bowls were found alongside the aforementioned large storage jar sunk in a bench. Further west was room A684, the room with the large circular oven similar in form to those found in phase 'g' in the north-eastern area. The analysis of the ceramic materials found on the floor of this room supports the hypothesis that in this small room, with an oven that takes up most of the space, small scale food preparation was the main activity carried out (see graph in Figure 6.22).

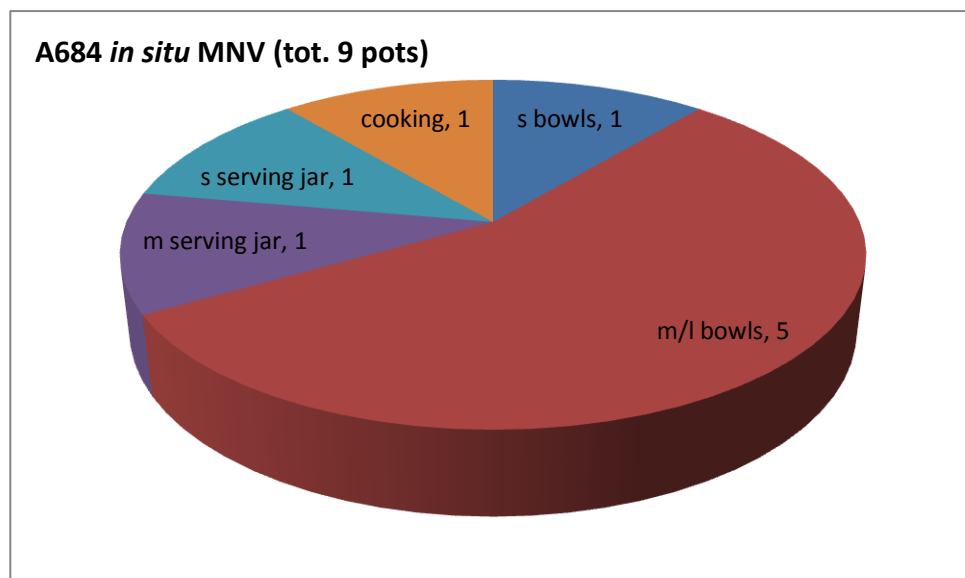


Figure 6.22 – A684 ceramic distribution (*in situ* - Minimum Number of Vessels)

It is also important to note that, apart from one small bowl found in A684, no vessels that could be used for the individual consumption of food in these rooms (A682 and A684). The presence of five large and medium bowls may suggest a larger group of people sharing their collective use of the same larger containers, or perhaps that this room is associated more with food preparation or some other activity rather than food consumption. The list of portable artefacts from A684 and A682 also include flint blades that had been used to cut meat, carve stones and presumably to harvest siliceous plants such as wheat or barley. These uses of flint tools were suggested by Lemorini following a use-wear analysis carried out on Arslantepe VII materials (in her presentation at Rome's workshop on Arslantepe VII – March 2012).

The ceramic materials found in room A657 (see Figure 6.23), built above the remains of A682, consisted of four small bowls, two cooking pots and a couple of small restricted jars; associated with these vessels were several flakes of flint and obsidian discarded on the floor. The limited number of vessels makes any interpretation of the activities taking place here very tentative; however, given the features found in the room, food preparation and consumption are once again likely to have been carried out in this room. It is also interesting to note that the small bowls for individual use are predominant; for this phase of Period VII this evidence remains an isolated instance; all the other contexts considered so far showed mainly medium to large bowls for communal consumption or small beakers for individual consumption of liquids. The analysis of the flint scrapers and blades found in A657 indicates that these stone tools were used to work wood surfaces and hides.

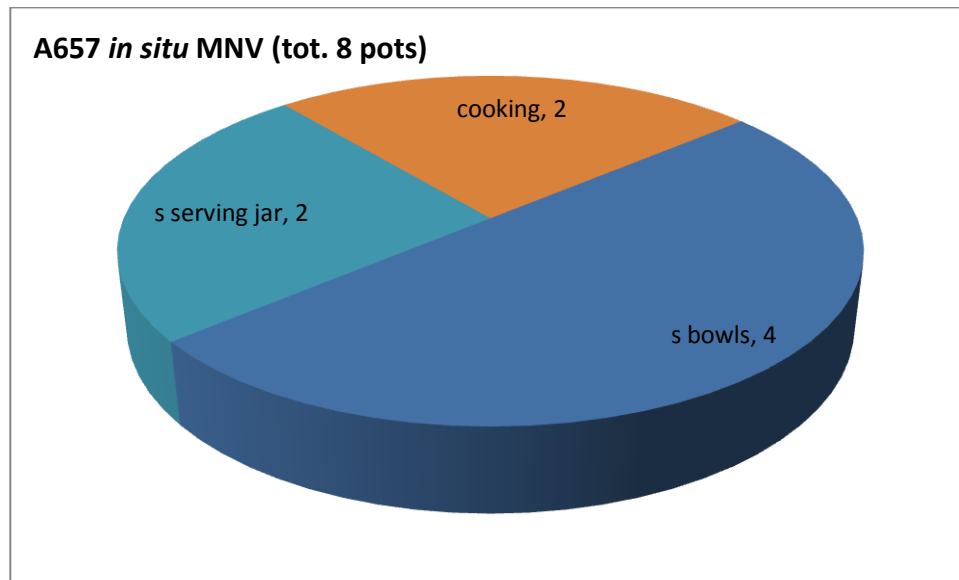


Figure 6.23 – A657 ceramic distribution (*in situ* - Minimum Number of Vessels)

Of all the contexts belonging to phase 1, the one that shows significant differences from the others is surely A617. Its large concentration of storage jars suggests that it served the needs of a group larger in size than a normal single domestic unit. Whether this need was storage for the use of larger scale elite household or a centralised storage for larger scale institutional or communally administered purposes is hard to define at this stage. Next to this storage area, A582 and the other rooms like A682, A684 and A657 were used for different purposes indicating that a wide range of activities were performed within this building complex.

Although the main purpose of the present part of my research is to analyse the pottery distribution within individual rooms in order to define, if possible, the activities carried out in them, it has been suggested by Augusta McMahon and Rachael Sparks (Viva 2013) that charts combining the vessels from all the rooms of each building could be useful for comparisons between the north-eastern sector

and the western slope. The following chart (Figure 6.24) combines the vessels from all the rooms in Building XXV

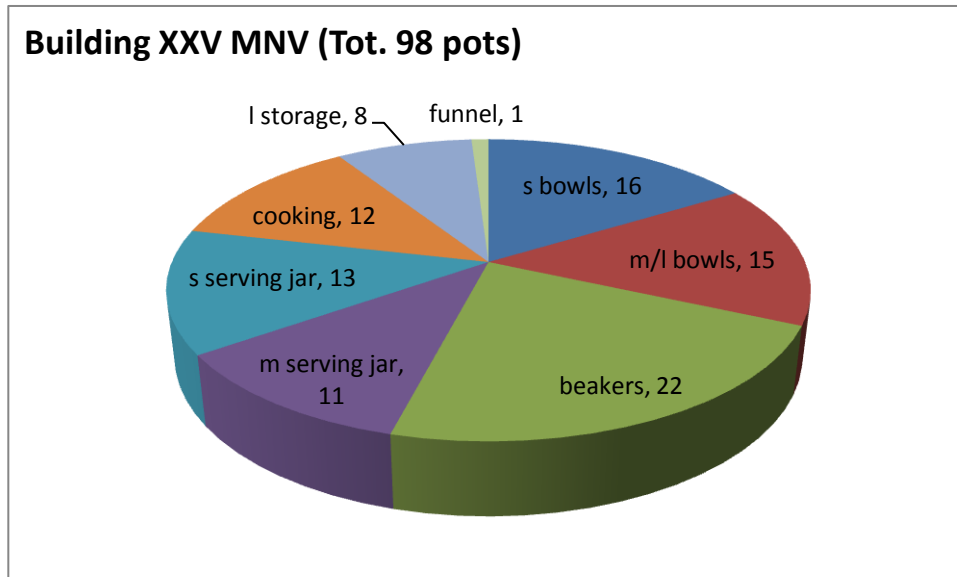


Figure 6.24 – Building XXV ceramic distribution (Minimum Number of Vessels)

The chart above combines all the vessels found in the four rooms of Building XXV. Some of the rooms in the building showed the predominance of specific vessels, this was interpreted as indicative of specific activities that might have been carried in the rooms. In this last chart (Figure 6.24) the distinctions between the different rooms are merged into a pattern that indicates that within the building a large range of activities were carried out at the same time.

6.4.2 Phase 2: domestic structures

The buildings belonging to **phase 2**, were excavated to the south-west of phase 1 structures, had the same north-east/south-west orientation. This phase consisted of smaller structures of a more domestic character. They were grouped in three complexes of two or three rectangular rooms. Abundant *in situ* materials were also recovered from some of these contexts (Figure 6.25).



Figure 6.25 – Phase 2 (adapted after Liberotti 2007 – Fig. 3)

The central structure of these complexes was square in outline but internally subdivided by partition walls that created a main rectangular room A580 and two annexed smaller roughly square rooms A855 and A856. This plan is also characteristic of structures belonging to Period VIA, which highlight the continuity of the architectural models between the two periods. A580 was more than seven meters long (part of the room was not excavated) and about four meters wide, in the middle of the room there was a circular hearth roughly one meter in diameter.

The floor had been plastered and re-plastered several times during the life of the building; the north wall had traces of painted decoration consisting of simple red stripes on a white background. Of the two rooms next door A856 had a bench and a basin made of yellow clay with large limestone inclusions (white and round in shape); the basin had a circular shape with a diameter of 50-60 cm and it was about 20 cm deep. The opening on the north-west side of the basin (towards the middle of the room) resembled that of a small oven, but no traces of combustion activity were detected. Two small doorways connected A580 with the other two rooms which probably were only partially separated by a partition wall of which only a small segment was found.

To the north of this group was another group of rooms A581, A583, A575 and A618. Of these rooms only A581 was relatively well preserved, the other structures were disturbed and truncated by later events. A581 has a rectangular plan that is more than four meters long and about 3.5 meters wide, it had two entrances or doorways, one cut into the north wall towards A618 and another one in the west wall leading towards A853. The room had a bench by the north corner and a small circular hearth with a small bowl in the middle of it. The building underwent some changes throughout its life-span. It seems that in the earliest phase of construction the west wall was further away from the centre of the room and that it was subsequently rebuilt and shifted east, a new bench was built and the whole room was re-plastered (floor included). The floor seems to be cut by the north wall of A580.

To the south-west of room A856 was another group of buildings A849, A853 and A854. The latter was in fact only a small alleyway between the two structures and it was connected to A849 through a door. A849 was a little rectangular room (3.5 meters by 3 meters) with a large oven (2 meters in diameter) which dominated the internal space of the room and a bench that ran along the east wall. To the east of

this same wall room A853 was found; only a 2 meter by 3.5 meters small area of this room was uncovered as the easternmost part of it, very much like A580 and A581, was covered by the imposing walls belonging to structures of phase 3.

The buildings of phase 2 did not have the monumental character shown by the structure with thick walls and columns described in phase 1; the overall sizes of these structures, the benches, the hearths, the clay basins, the oven and the portable materials found in these rooms seems to suggest a utilitarian function for this buildings.

Analysis of the portable artefacts: utilitarian assemblage

The chart below (Figure 6.26) describes the pottery assemblage from A580. There is a high variability of functional categories. At least three medium sized restricted jars, that could have been used for both short-term storage and serving of liquids, were associated with six small beakers, two small jars and five bowls two of which were small enough for individual use whilst the others were quite large and could have been used for communal use or for the preparation of food.

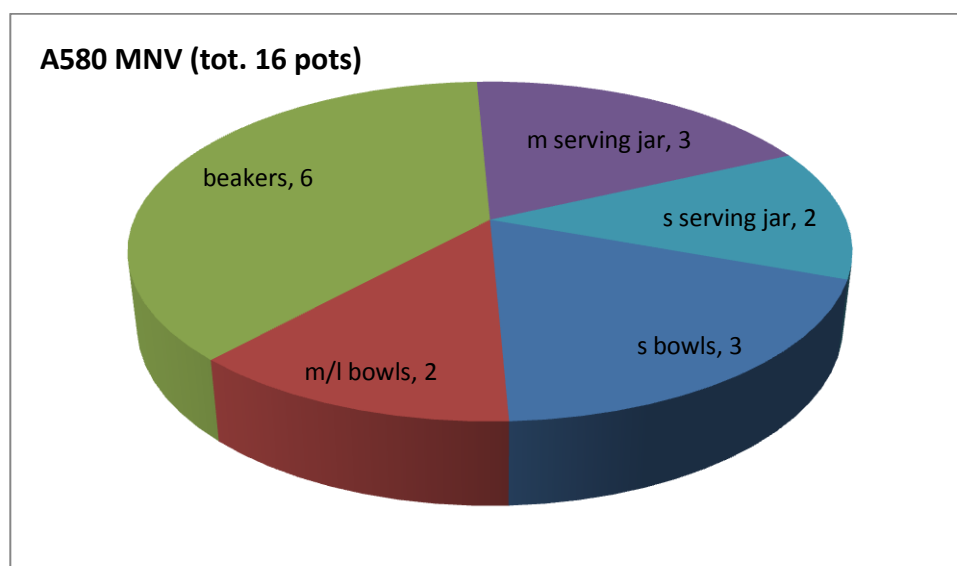


Figure 6.26 – A580 ceramic distribution (Minimum Number of Vessels)

Also notable in A580 was the presence of large quantities of sea shells which reflect similar evidence from the room that was built directly above of A580 and attributed to phase VIA (A562).

The pottery assemblage of A855 and A856 (Figure 6.27) directly connected to A580 suggests that a variety of activities were carried out in these rooms; it included vessels for food preparation like large bowls and cooking pots but (two more cooking pots were retrieved from the fills above the floor) also pots for serving and consuming liquids and solid foods; two large storage jars were also found in these rooms suggesting that goods could be stored here for a certain length of time.

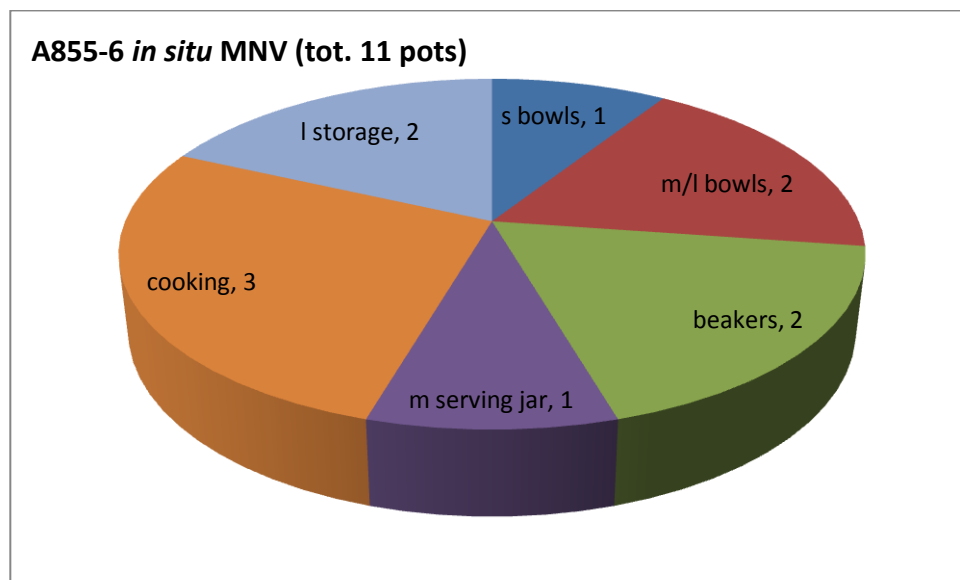


Figure 6.27 – A855-6 ceramic distribution (*in situ* - Minimum Number of Vessels)

Although at a different scale, this seems to match a pattern already seen in the buildings of phase 1, the figures from A580 and A855-6 combined indicate that a wide range of activities were probably performed in these structures, vessels for small-scale storing, cooking, serving and consuming solids and liquid foods were all present in these contexts reinforcing the impression that this groups of buildings

could have functioned as distinct households. Nonetheless, the differences between these contexts and the buildings previously described from phase 1 remain quite obvious in terms of their dimensions, architectural layout and portable artefacts. For instance the number of large storage vases inside A617 does not compare with the two jars in A855; in A617 supplies for a larger group of people were stored and the needs were probably different to the storage necessities of other spaces. This idea is supported by the typological comparison between the storage jars found in A617 and A855, the two jars in the latter had very large openings (between 30 and 40 cm) and their external surfaces were barely smoothed. The storage jars found in A617 belonged to two different groups; four of the seven jars had roughly the same characteristics as the ones in room A855, but other three were quite different, they had a more restricted access (up to 17 cm) and slipped and burnished surfaces. These different features point to different uses of the vessels. As seen in the previous chapter vessels with non-restricted access tend to offer less protection to the content and at the same time, in the case of large vessels some treatments of the surfaces could enhance their insulating properties.

As shown in the chart below (Figure 6.28) A581 ceramic assemblage is very limited and consists mainly of small and medium restricted jars (probably used to serve liquids), one small bowl, one beaker and some fragments of large storage jars. This is the first room where the assemblage does not include any food preparation vessels. Unfortunately, A583 and A618 were only poorly preserved and did not yield any materials hence we are not able to verify if the assemblage in A581 was complemented by other objects from the other rooms.

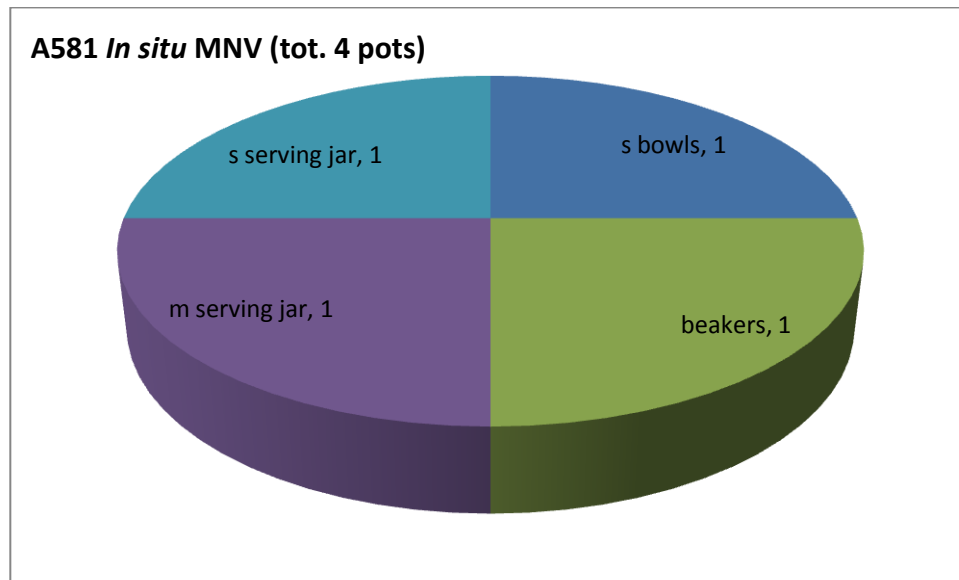


Figure 6.28 – A851 ceramic distribution (*in situ* - Minimum Number of Vessels)

The last group of phase 2 buildings includes A849, the room with a large oven and the small room – A583 – to its east side. In the former only two bowls were found on the floor whilst from the latter a bowl and a cooking pot were retrieved.

The following chart (Figure 6.29) brings together the results from all the rooms discussed above (within this section) in the attempt to verify whether there was a functional pattern recognisable for the whole building.

Phase 2 MNV (Tot. 31 pots)

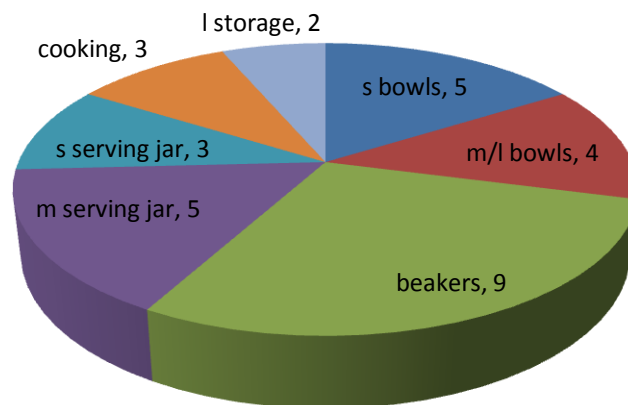


Figure 6.29 – Phase 2 ceramic distribution (Minimum Number of Vessels)

The chart above shows the variety of the activities carried out in the building and it does not seem to point to a predominant function.

Further evidence that a wide range of activities took place in these rooms is the presence of a large number of grinding stones and pestles as well as flint blades and flakes. These may have been used for a number of activities including cutting siliceous and non-siliceous plants as well as scraping hides and working wood.

6.5 The western Slope, phase 3: the latest phase

The excavated structures from phase 3 (Figure 6.30) were of an entirely different nature to those described for phase 2 (Figure 6.25). Phase 3 is the last building phase attributed to Period VII. Most of the phase 3 buildings were directly covered, if not truncated, by buildings belonging the Period VIA or later periods. Significant indicators of social complexity can be seen in several aspects of the artefacts belonging to this phase of Period VII.



Figure 6.30 – Phase 3 (adapted after Liberotti 2007 – Fig. 5b)

6.5.1 Building XXIX: the ceremonial monumental structure

On the western slope of the mound, south-west of the structures described so far, a large monumental building was found. Its architectural layout reflects a tripartite module with a large rectangular main room leading to smaller rooms located along both its longer sides (Figure 6.32). This type of plan is clearly similar to the monumental buildings that became typical from the Ubaid period onwards in southern Mesopotamia, but they are little known in the Upper Euphrates area (Frangipane 2001a: 9; Frangipane 2003). The building, named Building XXIX

according to the internal Arslantepe nomenclature, was built on the highest spot of the Chalcolithic mound and with imposing foundations of large stone slabs and two courses of mud-bricks. Furthermore, the scale of this structure has no comparison in any other buildings previously excavated in the prehistoric levels of the site: the central room, A900, is about 18 meters long and 7 meters wide, its walls are up to 2 meters thick. The thickness of the walls could have accommodated the presence of either a very high ceiling or a second floor. The internal structure is also indicative of a building of exceptional quality. A plastered rectangular platform of about 3 meters by 5 meters and 20 centimetres high made of mud-bricks stands in the middle of the main room. Traces of three hearths were found, one of them, on top of the central platform, had a preparation made of stones and sherds, the other two were north of the platform along the long axis of the room; next to these two fragments of andirons were found. Wall niches were located in direct association with the doors leading to the side rooms. In the north-eastern corner of the main room the walls were decorated with frescoes with a surviving fragment depicting what seems to be a storage jar with stylised human figures (Figure 6.31).



Figure 6.31 – Painted wall in A900 (after Frangipane (ed.) 2004, pp. 31)

Of the side rooms, the two east of the central room were preserved, while the western side of the building was badly damaged by the natural erosion of the mound. Of these two side rooms, the northernmost, A950, was very well preserved. The walls are still standing to more than one meter in height and the internal deposit was well sealed and virtually intact, only the south wall of the room was partly ruined by a large modern trench. A door on the west wall of the room connected this area with A900; a brick bench was found along the corner between the east and the south wall of the room. The southernmost of the two side rooms, A932, was partly damaged by a large modern trench; this room had direct access to the central room of the structure, A900.

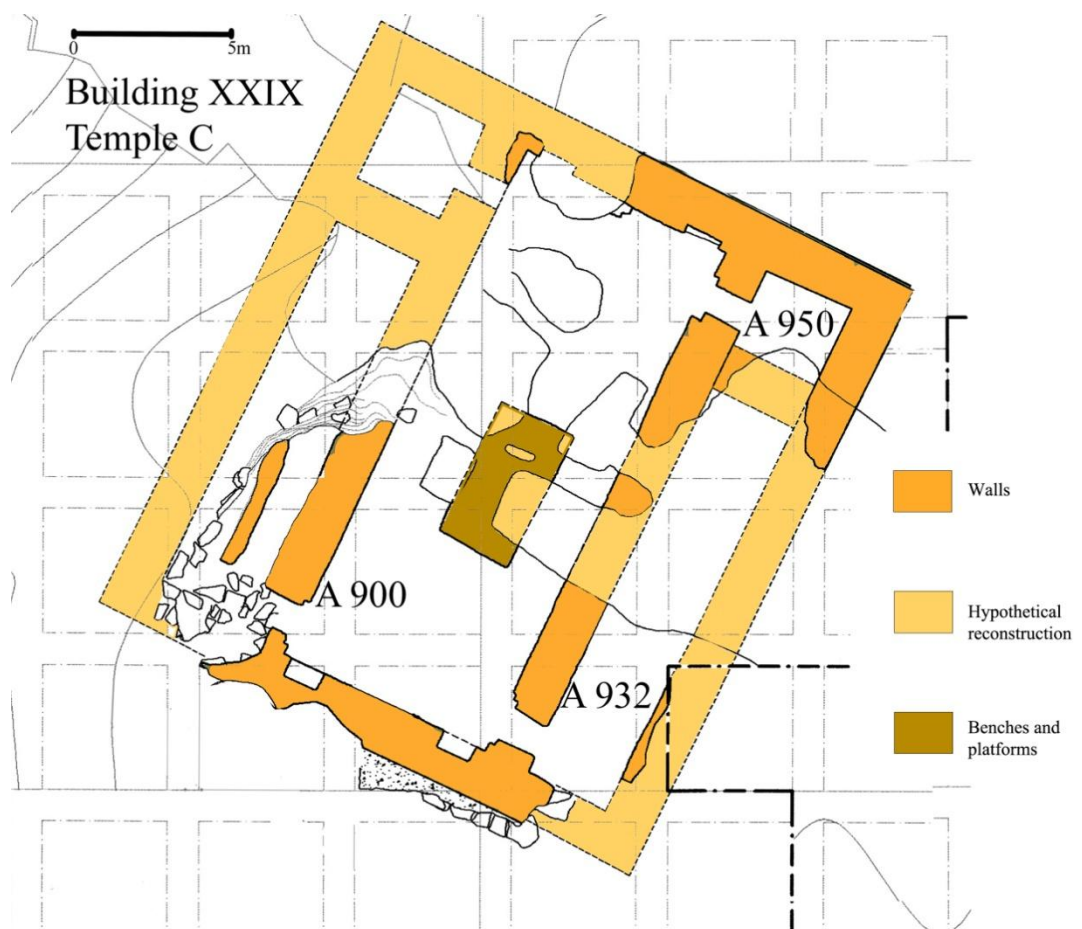


Figure 6.32 – Building XXIX (adapted after Frangipane 2003 – Fig.5)

Internal stratigraphy and analysis of the portable artefacts: evidence for redistribution practices

A900, the central room of this monumental building had a very homogeneous fill that was created by the collapse of the multi-coloured mud-brick walls of the room. The only remarkable element in this deposit was the concentration of potsherds in the southern part of the room. No traces of burnt soil or burnt organic matter were found in the fill or on the floor of the room, this evidence would suggest that the room was not destroyed by a fire, and finally this hypothesis seems to be supported by the presence of bat bones (Lazlo 2010) on the floor of the room.

The *in situ* materials found in the contexts of Building XXIX offer quite a distinctive picture which seems to match the unique architectural layout.

Scattered on the floor of the central room A900 and in the layer that covered the floor, 130 complete or almost complete mass-produced bowls were found, along with three jars, seven small beakers and two large carinated bowls.

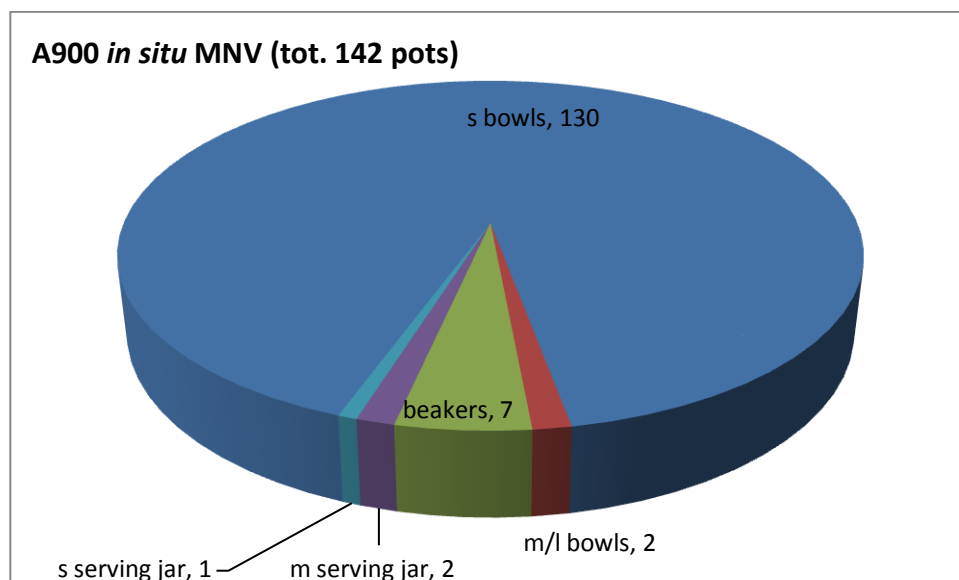


Figure 6.33 – A900 ceramic distribution (*in situ* - Minimum Number of Vessels)

The chart (Figure 6.33) shows the clear predominance of mass-produced bowls. Beside two fragments of andiron found next to one of the two small hearths to the north of the central platform and two flakes of flint, no other artifacts were found on the floor of A900.

As stated earlier, in this analysis, I am only considering a minimum number of vessels using complete profiles or fragments that are statistically representative of a whole vessel (see section 6.2.2 for details); but the vast amount of bowl fragments recovered from the floor and the fills of room A900 inspired an attempt to estimate the actual number of bowls present in the room at the time of the discovery. Therefore, a quantitative analysis of the fragments of bowls found in A900 was carried out in 2004 (Guarino 2008). Applying an “*estimated vessels number method*” (Orton, Tyers and Vince 1993) it was possible to establish that at the time of the excavation in the central room of Building XXIX there were about 1100 bowls. Obviously it is hard to say how many of these bowls were actually used in the room at the same time and how many of them were dumped in the fill of the room after the collapse of the walls. But if it is an important reminder of the fact that the figures and numbers used here can only be taken as indicative samples of the original assemblages it can also reinforce the idea of the enormous quantity of vessels potentially used in this building.

A950, the fill in this room was made mainly of collapsed mud-bricks, two internal layers were distinguished they were both made of collapsed mud-bricks but they were divided by slabs of clay. Both above and underneath the clay slabs several complete mass-produced bowls were found together with the brick fragments. No traces of fire were found but the clay slabs found in the room-fill could point to the presence of a roof and, possibly, given the presence of the bowls over the clay slabs, a second floor where bowls were stored. Figures of A950 ceramic distribution

show a very similar trend to the one already seen in A900. The artefacts from the two different floors of A950 are here presented separately.

A950 top floor (Figure 6.34): the materials associated with this floor included 28 mass-produced bowls, two large bowls and five beakers and the remains of one large storage jar.

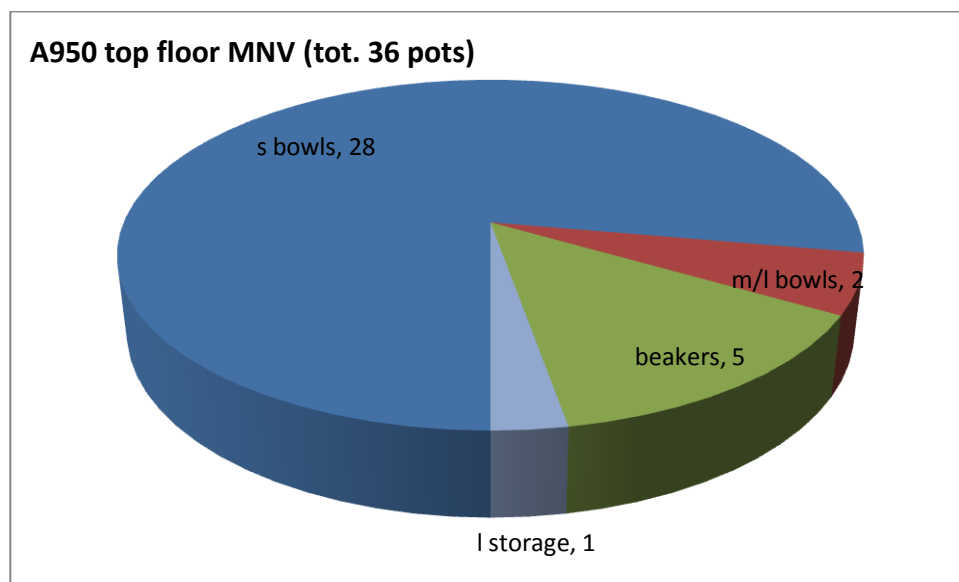


Figure 6.34 – A950, top floor, ceramic distribution (*in situ* - Minimum Number of Vessels)

A similar trend is visible in the assemblage collected from the ground floor of the room (Figure 6.35) where associated with a large number of mass-produced bowls were seven beakers, one large bowl, a serving jar and the remains of a funnel. Other artefacts from A950 ground floor included 18 clay sealings (Mezzasalma 2008).

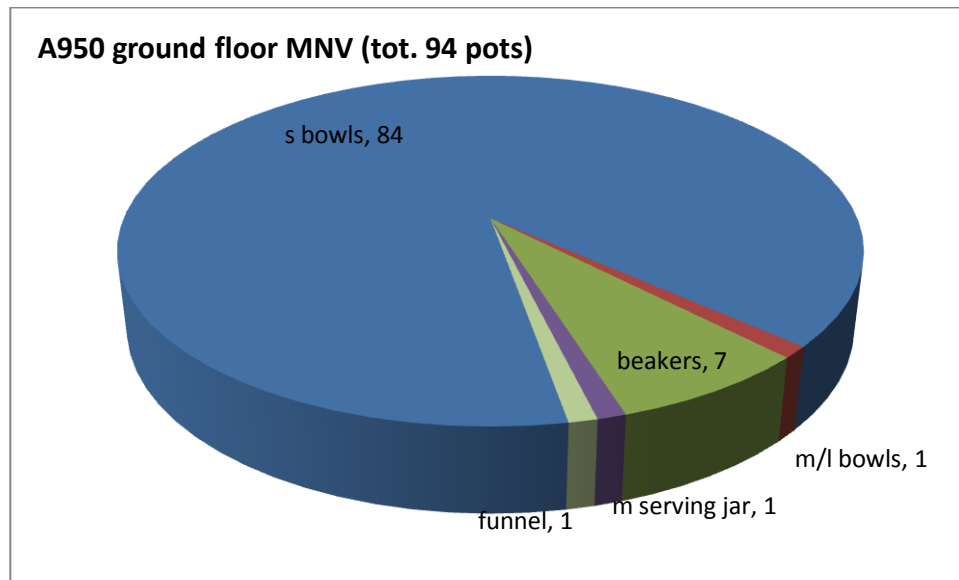


Figure 6.35 – A950, ground floor, ceramic distribution (*in situ* - Minimum Number of Vessels)

Many of the 84 bowls found on the ground floor of A950 were found stacked upside-down which may indicate that the bowls were stored in this room when not in use (Frangipane 2001a; Guarino 2008).

The fill of A932 consisted again of a deposit created by structural collapse. Noteworthy is the fact that on the southernmost part of the fill there were 163 clay sealings and several other clay sealing fragments (Mezzasalma 2008), these diminished as the fill was excavated towards the original surface of the floor of the room where the mass-produced bowls were found piled up and stacked *in situ* on top of each other. A few fragments of clay sealings were found associated with the bowls themselves, but not in the same quantity as in the fill overlying the floor (*ibid*). This evidence seems to suggest that a large group of discarded sealings were stored somewhere in the room above the floor level. It is also interesting to note that whilst the other two rooms of the building did not show any evidence for fire the floor of room A932 was entirely burnt, suggesting that at some point the room

was burnt down, but whether the fire was responsible for the destruction of the room or not cannot be ascertained.

The materials found on the floor of A932 (Figure 6.36) are quite consistent with those found in the rest of Building XXIX. The chart below shows the distribution of the *in situ* ceramics. Again the large number of mass-produced bowls (65 complete bowls) is the most striking factor, but, compared to A950 in A932 the number of restricted jars increases. The presence of the so-called funnel is also noteworthy as it could have been used to pour the content of the jars in the individual bowls that were then distributed to the people consuming the meal in A900. Alongside the bowls and the jars four beakers and one cooking pot were also found.

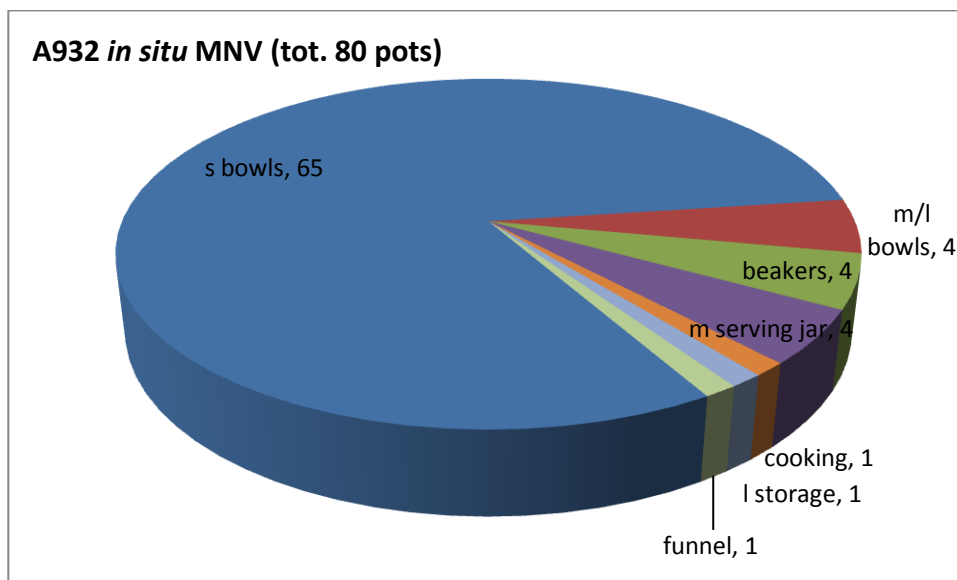


Figure 6.36 – A932 ceramic distribution (*in situ* - Minimum Number of Vessels)

The trend of the ceramic distribution seems to be quite consistent for the whole building. The association of several hundreds of bowls with few serving jars would suggest that the activities carried out in Building XXIX included a large scale communal consumption of meals during which food or drink (or possibly both) were distributed and consumed. The facts that in the side rooms A950 and A932 the

bowls were found stacked upside-down, and that in A932 and A950 they were associated with a large number of clay sealings suggested that the two rooms might have been used as store rooms where the bowls were stored (maybe ready for use or after use) and where the transactions involved in the distribution of meals were controlled by the use of the clay sealings.

As in the previous sections a chart was produced to combine the vessels from the three rooms belonging to Building XXIX.

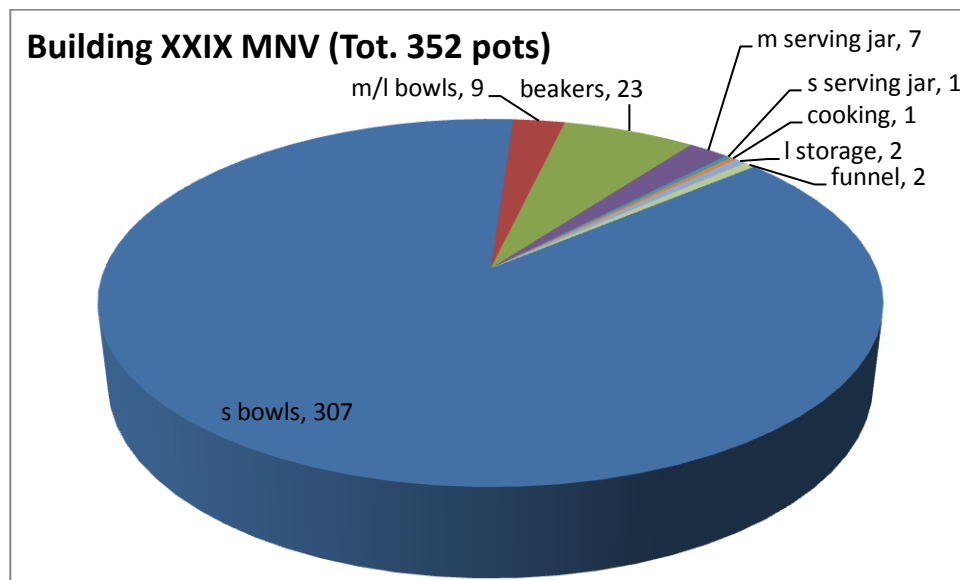


Figure 6.37 – Building XXIX ceramic distribution (*in situ* - Minimum Number of Vessels)

The chart above (Figure 6.37) confirms the impression gathered from the charts for the individual rooms, the predominance of bowls seems to be the most significant aspect and substantiate the idea that the whole building had a very specific role within the settlement.

6.5.2 The long rooms complex

To the north-east of Building XXIX and stratigraphically above the structures belonging to phase 2 (A580 etc.) a complex of structures was found. Their layout

and characteristics have raised many questions about their possible function and use. It is a complex of five (so far excavated) large rectangular rooms (Figure 6.38).



Figure 6.38 – Long rooms complex (adapted after Liberotti 2007 – Fig. 5b)

These rooms had roughly the same orientation as the buildings described above; their dimensions vary between 9 and 6 meters in length and between 5 and 2.5 meters in width. The main characteristic shared by all of the rooms of this complex was their elongated rectangular plan; their walls were built in mud-bricks on hefty stone foundations, were lined with white plaster whose thickness (around 2 meters) could have easily supported the weight of a second floor. The architectural layout of this complex does not offer any particular indication of its possible function beyond the fact that these rooms are far larger and quite different in layout compared to domestic buildings. Furthermore, the lack of internal furnishing features limits the possible interpretations of the use of the spaces. The only internal features found were a circular oven in the last phase of occupation of room A850, a simple hearth,

reused in the last two occupation phases of the room, and in the case of A842, a row of mud-bricks placed horizontally on the floor along the east wall interpreted as a bench. A850 and A860, the westernmost rooms of the complex, were partly separated by a small partition wall which left a passageway open (the floor continues uninterrupted from one room to the other). The length of the two rooms together would have been around the 14 meters while their width ranged between five and three and a half meters. To the east of A850-A860, the two rooms A858 and A848 were originally built as one space that at some point was divided by a partition wall. This was shown by the fact that the foundation trench of the partition wall truncated the oldest floor of both rooms and also fragments of matching pot sherds were found on the two sides of the wall. A858 and A848 were narrower than the previous two rooms, their width ranged between 1.80 meters and 2 meters; before the subdivision they must have been longer than 10 meters.

Separated from this building block but clearly built on the same alignment and with the same characteristics as the other rooms was room A842. It is another rectangular room with thick walls made with mud-bricks and plastered on the inside.

The south end of room A860 was badly disturbed by a large modern pit (Figure 6.38); nonetheless, the room represents a crucial stratigraphic connection with other contexts to the west of the building: the most interesting feature of A860 is a stairway, made with large stone slabs on the southern stretch of the west wall, that leads towards another context (A954), which in turn is connected with building XXIX. In A858, A848 and A842, two floor levels were distinguished. In the last two cases only the oldest level had *in situ* material. This differs from A850, where five different floor levels were recognised and at least three of these floors contained *in situ* materials. In the case of A860 the only floor recovered was the oldest one, connected with the earliest floor level of A850. No materials were found on this

floor. The detailed recording system has allowed me to distinguish the materials found on different floors of the same room and therefore to analyse the function of the rooms trying to understand the differences, if any, between different phases of use.

Internal stratigraphy and analysis of the portable artefacts

The first floor found in A850 (i.e. the latest in chronological terms) was mainly preserved in the northern area of the room; it consisted of a patch of very compacted soil composed of several thin layers of mud. An oven attached to the east wall of the room is associated with this last phase of room use (floor 1). Horseshoe shaped, roughly one metre in diameter, the oven's structure was made with mud whilst the actual cooking surface was prepared with stones and potsherds. A hearth was also associated with this last phase of use of the room was also, comprising a small (about 70 centimetres across) sub-circular depression full of ashes. The hearth was renewed three times; the first two phases were associated with 'floor 2' and the last was related to 'floor 1'. This in itself seems to suggest a sense of continuity between at least the last two phases of use of A850. It is reasonable to believe that ovens and hearths fulfilled distinct functions. More specifically there is no evidence to define whether the oven was used for food preparation or for 'industrial' purposes or whether the hearth had functions other than giving light at night and keeping the large space warm.

Non ceramic portable materials associated with floor 1 were three flint blades, two obsidian arrowheads, a bone chisel and several small fragments of clay sealings. Frequent fragments of yellow ochre and charcoal were also found on floor 1 and in the fill just above it. Finally the pottery assemblage was limited to very few objects, mainly small bowls, one large bowl or basin and a small restricted jar (Figure 6.39).

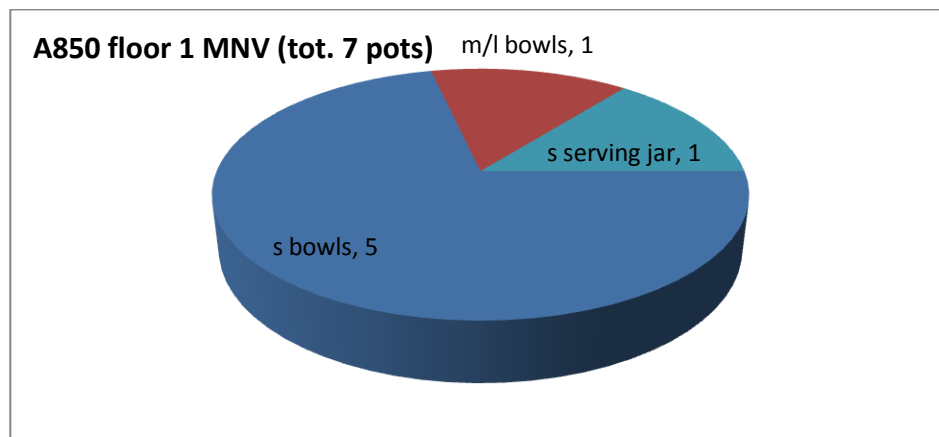


Figure 6.39 – A850, floor 1, ceramic distribution (*in situ* - Minimum Number of Vessels)

Floor 2 consisted of a compacted dark soil; it was relatively well preserved but was broken at both north and south ends. On this surface were found fragments of ochre and turquoise-like stone, as well as a bone tool, an obsidian arrowhead and a fragmentary flint blade. Particularly interesting was a large concentration of clay sealings associated with a group of bowls, these artefacts were concentrated towards the room's west wall. Other ceramic vessels found on floor 2 were five beakers and a large basin (Figure 6.40).

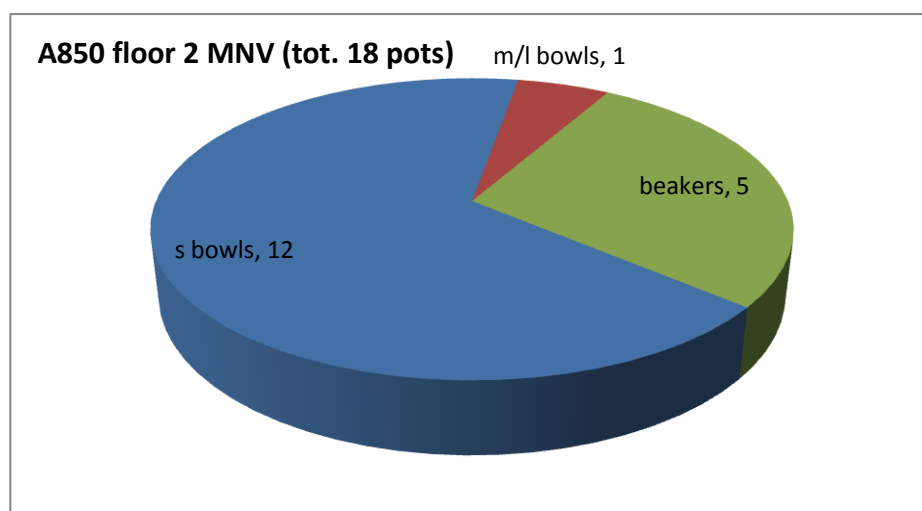


Figure 6.40 – A850, floor 2, ceramic distribution (*in situ* - Minimum Number of Vessels)

Only a small fragment of floor 3 was preserved, found towards the southern end of the room. It consisted of a grey compacted soil with remains of ochre, charcoal and a fragment of turquoise-like stone. Floor 4 was better preserved and it was found across the whole room. This floor consisted of many thin layers of fine mud, in some areas there were concentration of yellow ochre, turquoise-like stone and mica fragments; also traces of wattle and daub structures were recovered as well as several fragments of clay sealings, four arrowheads (three made of obsidian and one of flint). Also many ceramic vessels were found on floor 4; again mass-produced individual bowls were highly prevalent and they were associated with two large bowls, a stemmed bowl, two beakers and a small restricted jar (Figure 6.41).

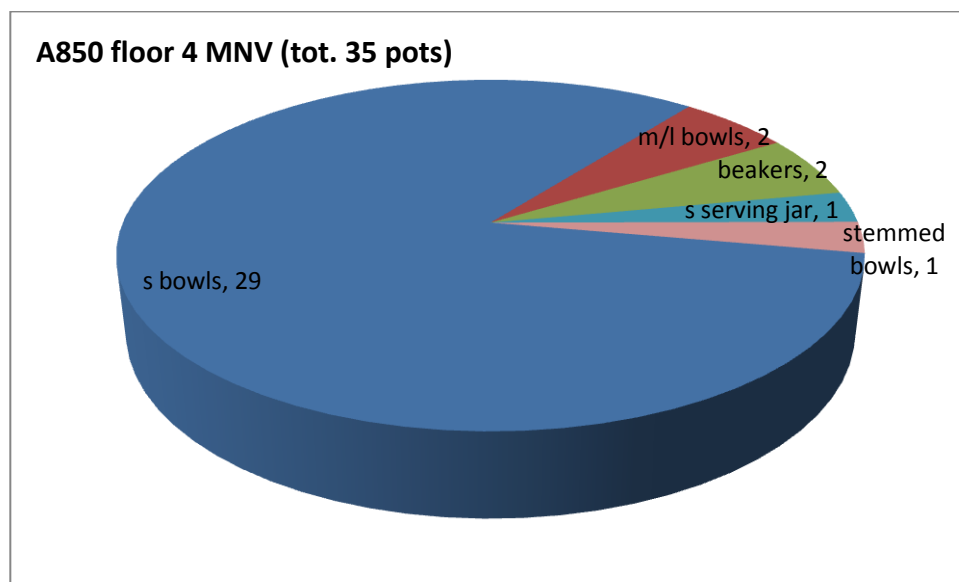


Figure 6.41 – A850, floor 4, ceramic distribution (*in situ* - Minimum Number of Vessels)

Floor 5 (i.e. the earliest phase chronologically) was a brown surface, almost entirely preserved except for a strip in its western end. This floor continues beyond the little wall that divides A850 from A860 and is found in this latter room as well. Among the many *in situ* materials two obsidian arrowheads, a stone tool and two small cones of red ochre were found. The bowls represented the large majority of

the *in situ* artefacts and they were associated with one cooking pot and one small beaker (Figure 6.42).

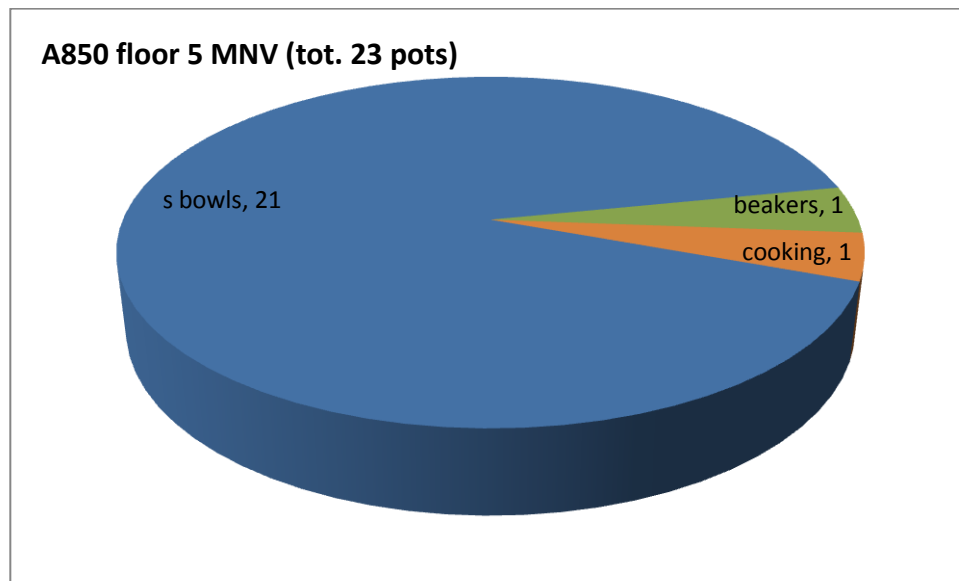


Figure 6.42 – A850, floor 5, ceramic distribution (*in situ* - Minimum Number of Vessels)

The interpretation of the distribution of portable artefacts in the three phases of use of A850 is not as clear cut as it was for Building XXIX; although mass-produced bowls are again the predominant artefacts in all the floors of the room they were not as many as they were in the tripartite building and although they were often associated with clay sealings indicating in all probability that some kind of recorded redistribution was practised in the room they were also associated with some artefacts like frequent fragments of yellow ochre, obsidian arrowheads, flint blades, the occasional spindle whorl and bone chisels which could suggest that other activities were also performed in the room. Although this is not enough to define the actual use of this room, it is nonetheless sufficient to mark it out as different to the other monumental structure described earlier.

A860, the south extension of A850 is badly damaged by a large pit. No internal stratigraphy was detectable and no materials were found *in situ* except for a bowl in the area between A850 and A860.

A848, A858, in both rooms the latest phase of use, Floor 1, was a surface of fine mud virtually indistinguishable from the soil that covered it, to the point that the archaeologist doubted that it was a laid floor and suggested that it might have been a surface hardened by repeated use. Very little *in situ* material was found on Floor 1 of A858 and A848. In both cases there were some bowls, one beaker and one or two serving jars (Figures 6.43 and 6.44). In this phase of use the two rooms had exactly the same categories of objects indicating perhaps a similar use of the spaces and that similar activities were carried out in them. These seem to be limited to a small scale consumption of food and possibly drink. According to the excavation records the rooms were probably abandoned for a period of time before the walls collapsed. During this time the movable artefacts in the rooms (if any) might have been removed, this could account for the scarcity of materials retrieved.

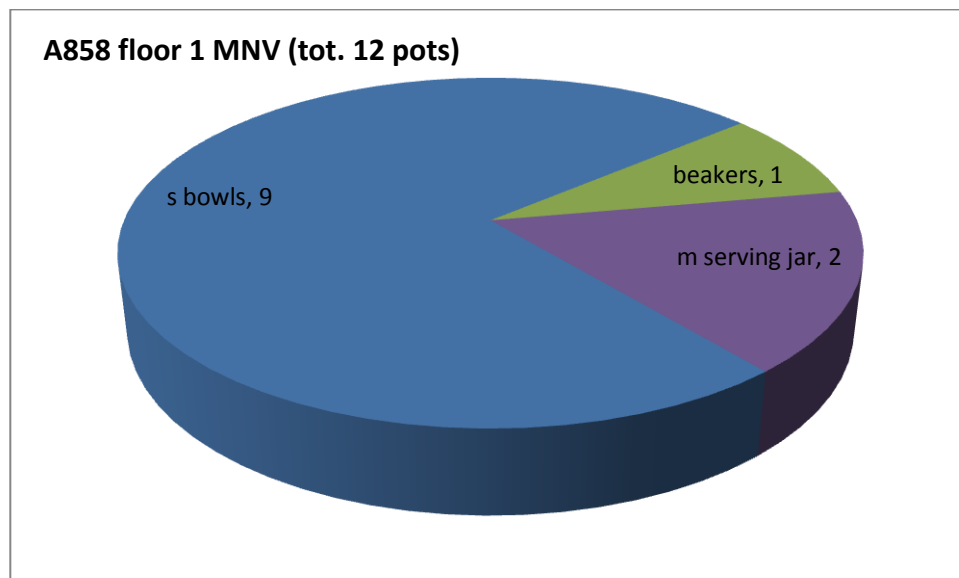


Figure 6.43 – A858, floor 1, ceramic distribution (*in situ* - Minimum Number of Vessels)

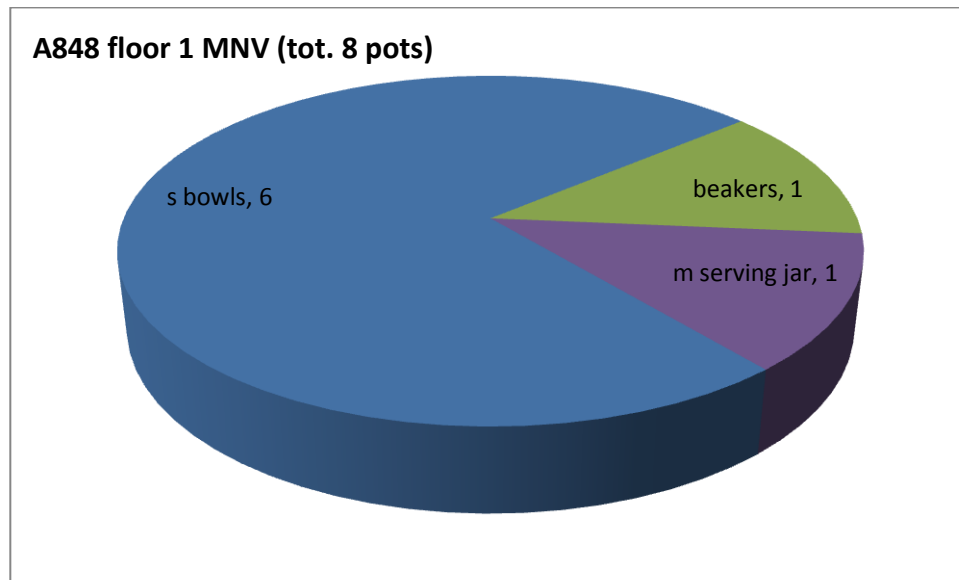


Figure 6.44 – A848, floor 1, ceramic distribution (*in situ* - Minimum Number of Vessels)

The earliest floors of A848 and A858 yielded a larger quantity of portable artefacts (Figures 6.45 and 6.46). There was also a higher variability of functional categories, although there is a clear prevalence of small bowls again, this is matched by three large bowls or basins and a cooking pot in A858 which could suggest that food was prepared in this context and also that the food consumption might have involved sharing of communal serving plates as well as individual consumption.

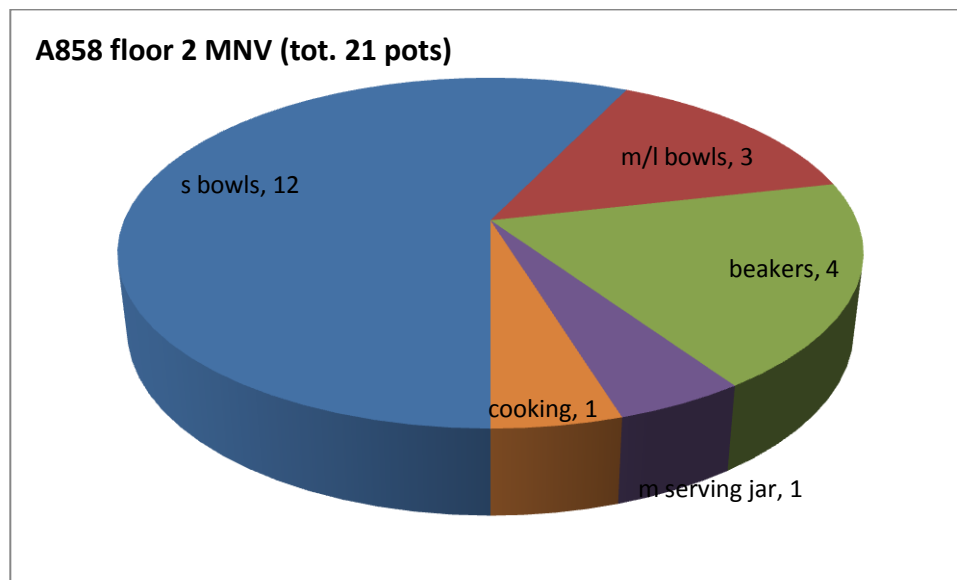


Figure 6.45 – A858, floor 2, ceramic distribution (*in situ* - Minimum Number of Vessels)

In A858 the ceramic assemblage was associated with 29 obsidian arrowheads.

In the earliest floor of A848 a large number of small bowls was associated with serving jars, beakers, one large bowl and a large storage jar with large mouth. Here again food consumption seems to be the main activity carried out in the room but some kind of goods were also stored in this area. On Floor 2 of A848 two flint blades and a bone spindle whorl were also found.

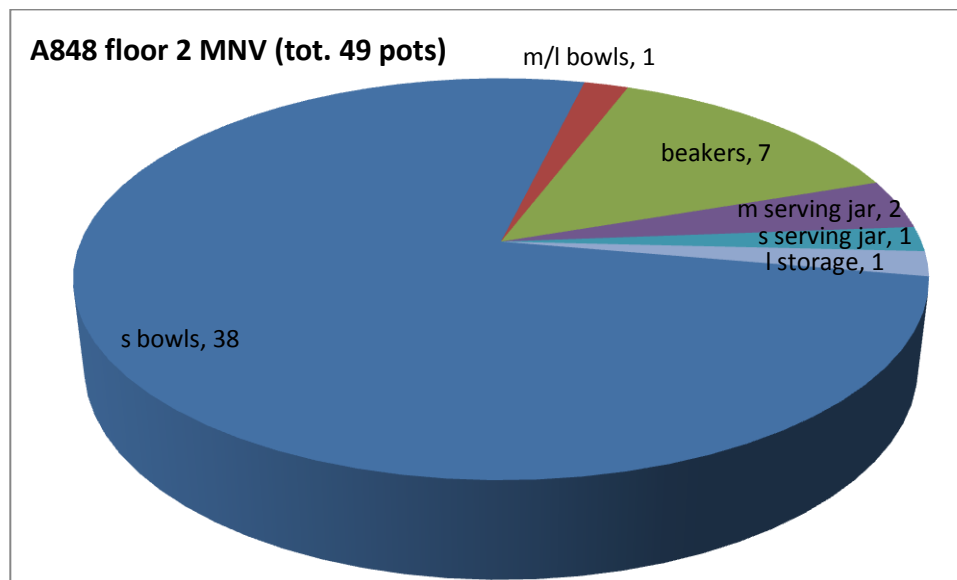


Figure 6.46 – A848, floor 2, ceramic distribution (*in situ* - Minimum Number of Vessels)

The archaeologists noted that both in A858 and A848 Floor 2 was covered directly by rubble created by the sudden collapse of a brick wall which suggests that the material found *in situ* might be the original assemblage used in these rooms.

Also A842 had two phases of use suggested by the presence of two floors, but the most recent of the floors was quite badly preserved and did not seem to have any materials *in situ*. Conversely Floor 2 was relatively well preserved and many artefacts were found lying on it. The ceramic assemblage was marked by a large predominance of vessels devoted to the individual consumption like small bowls and beakers, as well as two medium sized serving jars, a small jar and two large bowls (Figure 6.47). Alongside the pottery on Floor 2 of A842 were also found two jar-stopping clay sealings, a third sealing with seal impression, two flint tools (a knife and a scraper), a bronze bead and a grinding stone.

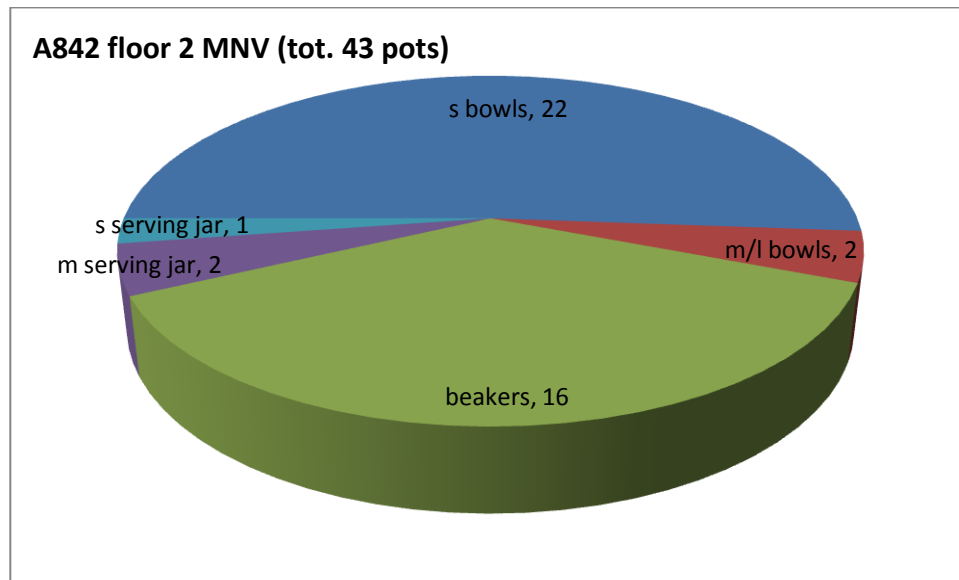


Figure 6.47 – A842, floor 2, ceramic distribution (*in situ* Minimum Number of Vessels)

The nature of this complex of buildings is relatively poorly understood, but surely the architectural characteristics, the presence of the bowls and the clay sealings strongly suggest that these long rooms had a specific purpose that was related to the administrative and redistributive activities also performed within Building XXIX. Probably the building suffered a structural disturbance during the first phase of use and had to be partially rebuilt, this hypothesis would explain the presence of collapsed bricks and rubble on the earliest floors of some of the rooms as well as the presence of partition walls built above the earliest floor. These rooms (or at least their walls) were obviously in use for a relatively long time, as demonstrated by the presence of five floor levels in room A850 and probably for this reason the distribution of portable artefacts in the rooms is harder to interpret. The occurrence of several stone tools like flint blades and particularly the many obsidian arrowheads found in A850 and A858, as well as obsidian flakes and fragments of ochre seems to suggest that these rooms were at some point used as ateliers for specialised production. In support of this hypothesis is also the fact that most the obsidian arrowheads were in pristine condition and at microscopic analysis it was

found out that they had never been used (Lemorini, presented at Rome's workshop on Arslantepe VII – March 2012).

The following chart (Figure 6.48) was produced in order to draw together the results from the different rooms and floors.

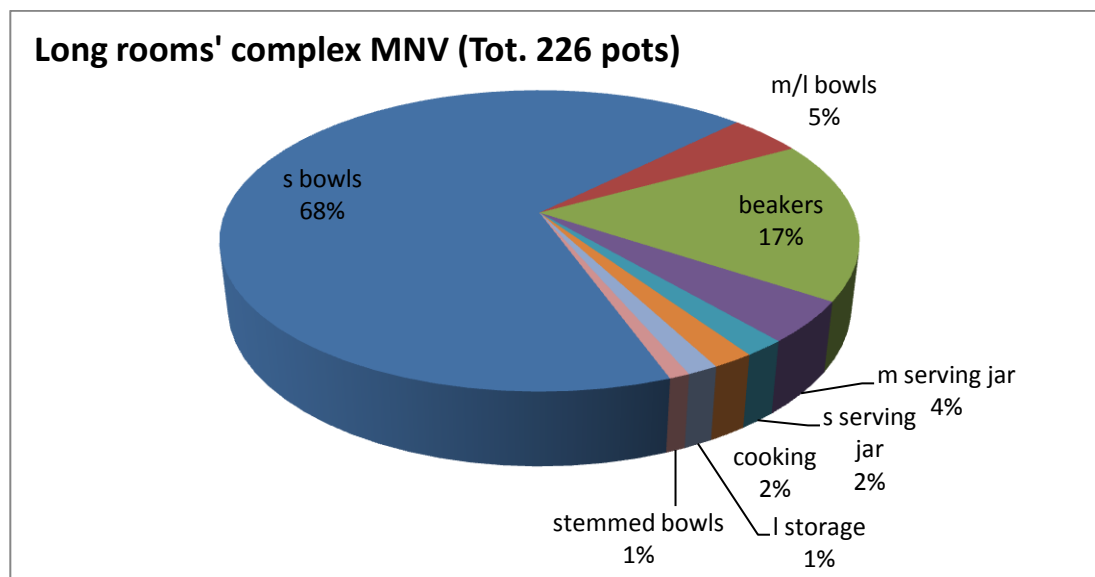


Figure 6.48 – Long rooms' complex, ceramic distribution (*in situ* Minimum Number of Vessels).

Unfortunately we were not able to determine relation of contemporaneity between most of the room's floors. This limitation is obviously present in the chart above and reduces its reliability in the interpretation of possible activities carried out in the building.

6.5.3. Contexts north of Building XXIX: possible meal preparation area

To the north of Building XXIX an area with three small contexts was excavated. These contexts, A934, A953 and A954 did not have the monumental characteristics of Building XXIX nor of the complex with long rooms. Their building techniques and

layout have led archaeologists to preliminarily interpret these structures as working areas, kitchens and an open space (field notes from 2001 excavation season). Their stratigraphic connection to Building XXIX is provided by the fact that their south limit was the north wall of Building XXIX. Technically these structures could have been built at any moment after Building XXIX was finished. Nonetheless, the fact that no other levels of period VII covered either Building XXIX or these last structures and the close similarities in the ceramic materials found in them suggest the contemporaneity of the two areas (Figure 6.49).

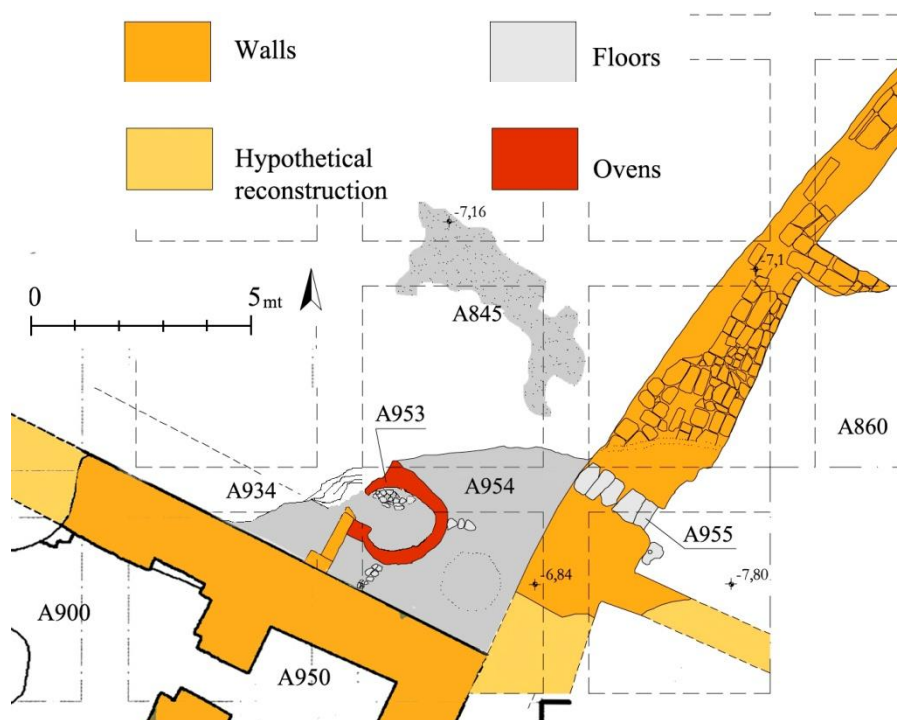


Figure 6.49 – Area north of Building XXIX (adapted after Liberotti 2007 – Fig. 5b)

A934 is the south-east corner of a small quadrangular room; its southern end was the north wall of Building XXIX. The room is enclosed on the east side by a small wall of mud-bricks built perpendicularly against Building XXIX's north wall. The floor was a surface of compacted mud, connected to both the walls. This same floor continued also into A953. Not many materials were found directly on the floor of

A934 but they are probably sufficient to consolidate the idea that this context had a different function compared to the monumental buildings of this phase, the incidence of mass-produced bowls is significantly reduced and, considering the ubiquitous presence of beakers in the contexts of Period VII, it seems that the most interesting element in order to infer the possible use of this room is the presence of two well preserved cooking pots, which would suggest that food preparation took place in this context (Figure 6.50). In the higher fills of the room four more almost complete small bowls were found; but it is difficult to determine whether these bowls were in A934 or ended up in the levelling fills of the room from somewhere else like the large Building XXIX that was full of it for example.

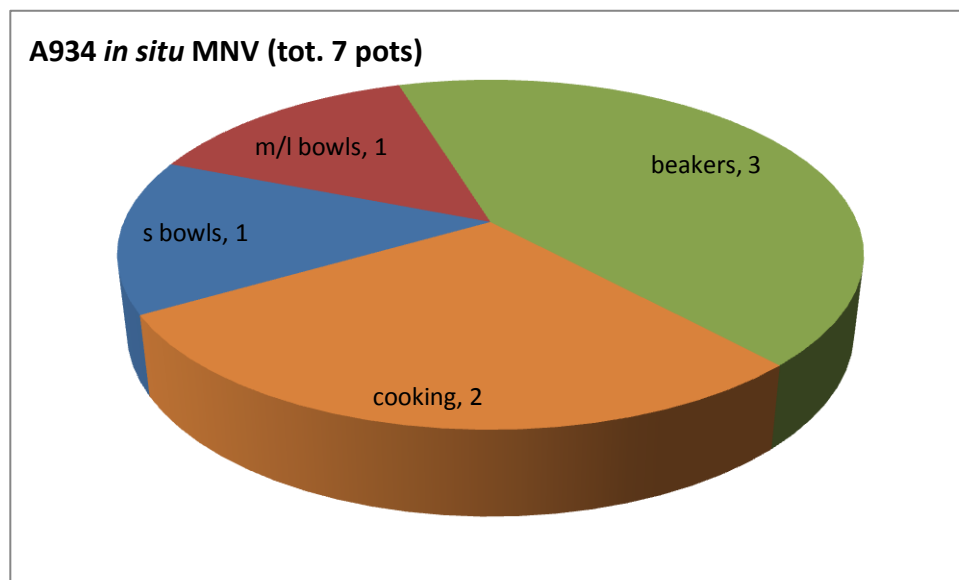


Figure 6.50 – A934 ceramic distribution (*in situ* - Minimum Number of Vessels)

A953, to the east of A934, is a small circular structure with two phases of use. The earliest phase had a hearth that occupied most of the surface and resembles an oven. Whilst in the latest phase, whose floor was connected with A934, the functional purpose of the context seems to have changed. The semi-circular wall was made with stones and sherds covered with mud and plastered. In its earliest

phase of use, the context was surrounded by vertically placed stone slabs that were included in the later wall. Several fragments of pottery were recovered from the floor of this unusual structure, but the attempts to reconstruct vessels from these fragments were partly unsuccessful as most of the fragments were unmatched; these belonged mainly to large storage jars. Among the pots that were reconstructed were small and large bowls, serving jars, beakers and cooking pots (Figure 6.51) reflecting again a more varied assemblage if compared to the ones observed for the monumental complexes of this constructive phase.

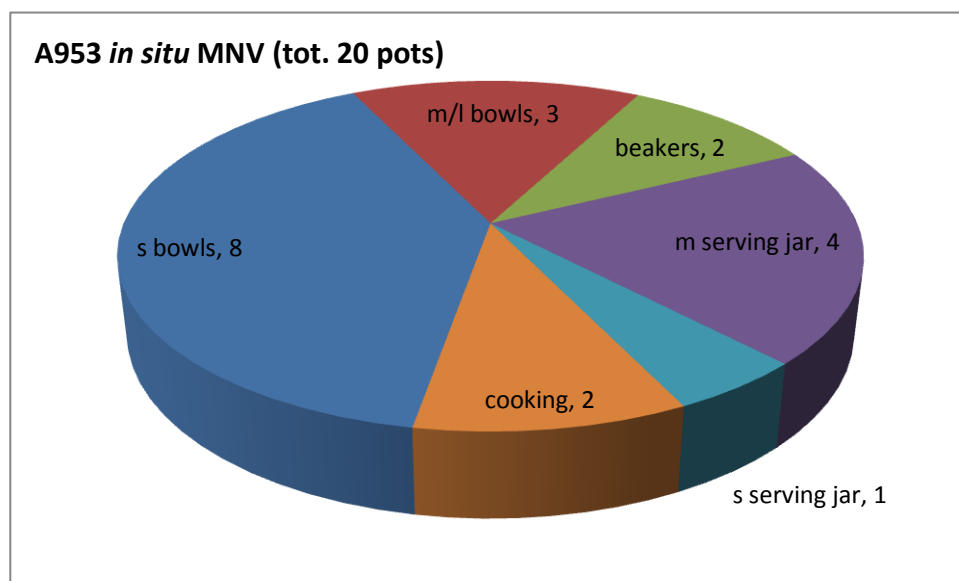


Figure 6.51 – A953 ceramic distribution (*in situ* - Minimum Number of Vessels)

Associated with A953 is the open area A954. It consists of a series of at least four overlapping surfaces made of refined mud. None of the surfaces were plastered; this evidence together with the absence of built limits suggests that A954 was in fact an open area. This area was connected to A860, one of the large rooms described above: in their earliest phase a stairway connected the two areas, during the following phases the floor level of A860 was raised, filling the staircase and leaving a simple passageway with a stone threshold.

Unfortunately in the case of the open area A954 it was difficult to determine the limits of all the various floor levels and particularly whether these were different floors. It could also be the case that the patchy nature of these floor remains was due to the exposure to the elements and what seems to be different overlapping surfaces might have been just small layers of mud applied to patch up the same ruined surface. Anyway, for the difficulties in interpreting this evidence, we present the material from A954 without distinguishing between the different phases (Figure 6.52).

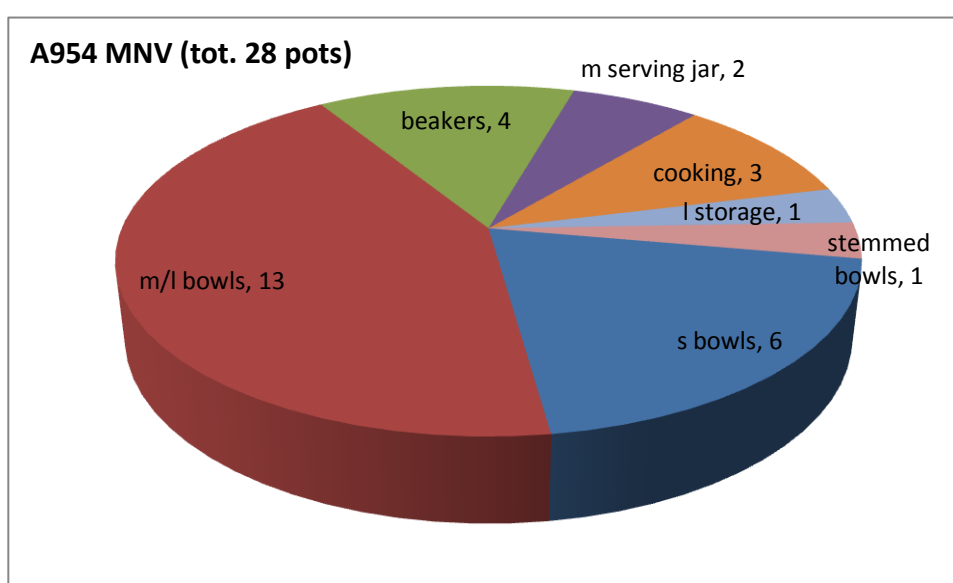


Figure 6.52 – A954 ceramic distribution (Minimum Number of Vessels)

Although it may reflect multiple phases of use of the area this graph is indicative of an ample spectrum of activities performed in it, suggesting food preparation, consumption and storage was present.

Although the wider range of pottery forms from these last three contexts matches the idea that in contexts that are not used for a specific function the range of activities tends to be higher, we should also consider the hypothesis that the

function of these contexts could have been somehow connected to the activities performed in the large monumental building nearby. It could be hypothesised that structures A954, A953 and A934 were parts of an area that served the needs of some of the particular activities carried out in the monumental contexts. Two of the cooking pots retrieved from A934 and A954 were among the largest found at Arslantepe VII, this would support the idea that these areas might have been involved in the preparation of food and drink served and consumed in Building XXIX and the 'long rooms' complex'.

The chart below (Figure 6.53) combines the results from the other rooms discussed within this section.

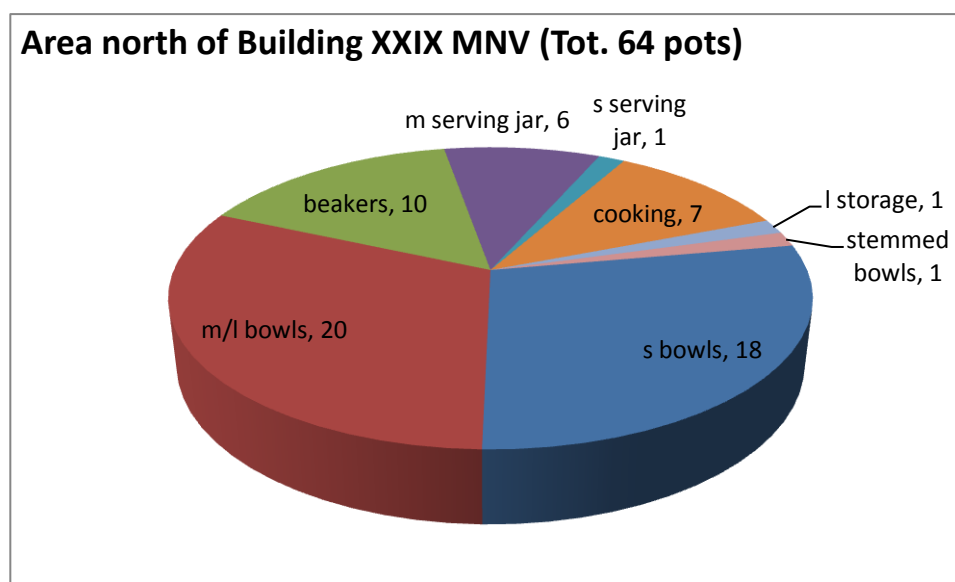


Figure 6.53 – Complex north of Building XXIX, ceramic distribution (Minimum Number of Vessels)

As seen in other sections the chart above does not seem to indicate any particular activity carried out in this area. Unarguably the relatively high percentage of medium to large sized bowls is indicative of either communal consumption of meals from shared dishes or food preparation. The latter hypothesis seems to be

substantiated by the high incidence of cooking pots, which, in turns confirms the hypothesis suggested above.

6.5.4. Structure A564: the bean-shaped building

The last context I present in this research, A564, is a structure of a rather unusual shape, the ‘bean-shaped’ house (Figure 6.54). Remains of at least four other structures that must have been similar in shape were found in this phase but they were all poorly preserved and did not have any *in situ* artefacts.

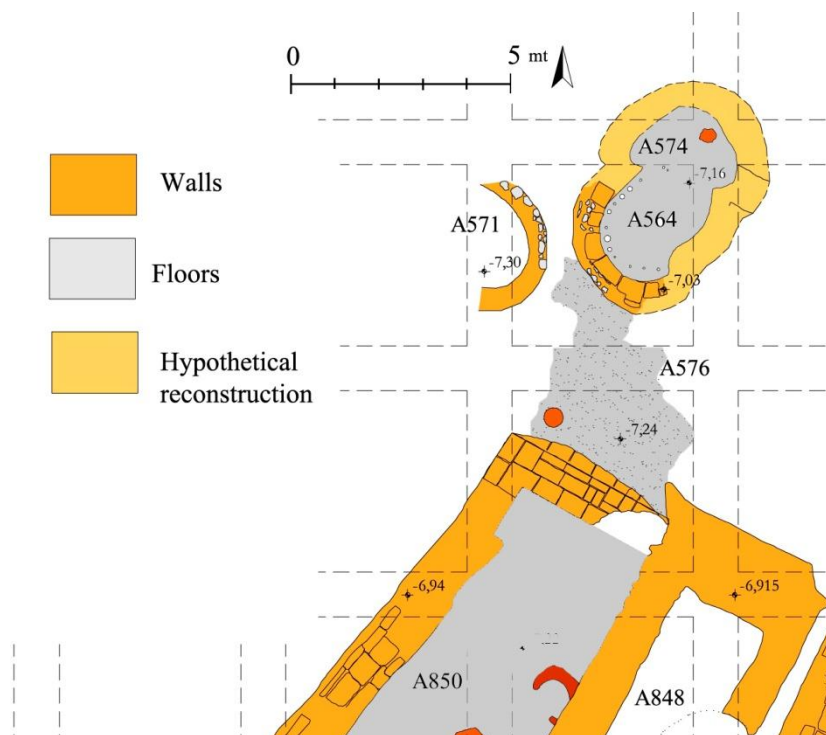


Figure 6.54 - A564 (adapted after Liberotti 2007 – Fig. 5b)

The building was about 2.80 meters long and the width varied from 1.50 meters to 0.70 meters. The south part of the structure was enclosed by a wall formed by a row of bricks horizontally placed (external row) and two rows of vertically placed bricks (internal row). The wall was made of mud-brick with stone foundations and was semi-circular in shape. The bricks were laid on a layer of mud that was

immediately on top of the stone foundations. The floor, made of compacted mud was plastered, with whitish-pink plaster. Three small hearths were found on the floor, one of which was described as a burnt and sunken circular area 35 centimetres in diameter and 10 centimetres deep. Underneath the floor eleven small post-holes and a small burial of a foetus were found.

This context was relatively well preserved and all the *in situ* materials were reconstructed to form a coherent assemblage composed of two cooking pots and four serving jars (Figure 6.55).

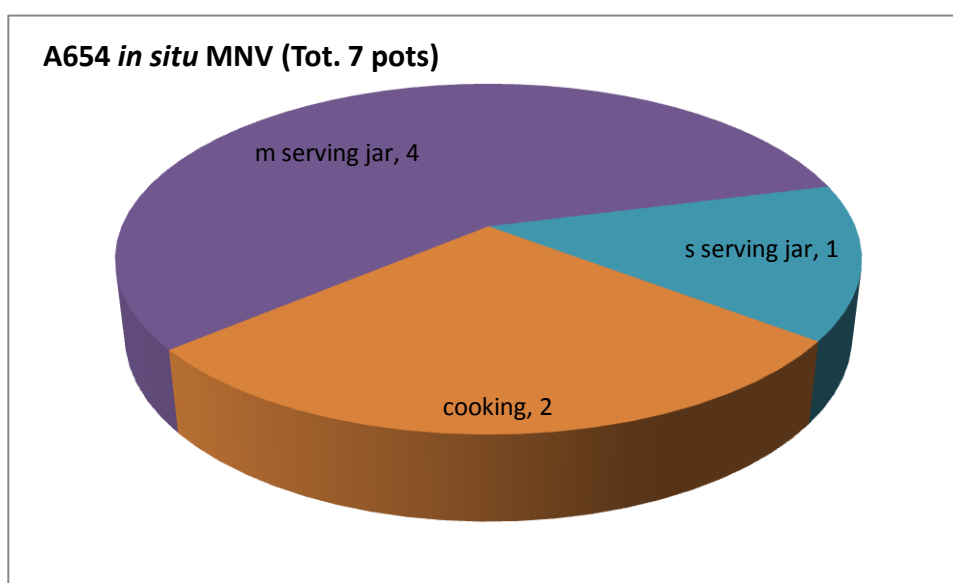


Figure 6.55 – A654 ceramic distribution (*in situ* - Minimum Number of Vessels)

The activities performed in this context were related mainly to food preparation and possibly the short term storage of liquids. Given the lack of bowls and beakers in the assemblage it could be suggested that meals were prepared indoors and consumed in the open or in another context (or more simply serving vessels were not preserved in the archaeological record). A surface made of a mixture of mud and potsherds ‘paved’ the area around A654 and which also encompassed the other

structures similar to A654. This group of structures were found just north of A850 and A848.

To summarise the results presented so far in this chapter, the table below (Table 6.1) provides a synoptic view of all the contexts and their associated vessels.

				S. Bowls	M./L. Bowls	Beakers	M. Serving Jars	S. Serving Jars	Cooking pots	L. Storage	Stemmed bowls	Funnel
AREA NE	VII 'd'		A21	1	6	13	4		5		1	
			A22	1	3	6		1	5		2	
WESTERN SLOPE	Phase 1	Building XXV	A617	8	5	9	9	4	3	7		1
			A582	3	5	13	1	6	6	1		
			A684	1	5		1	1	1			
			A657	4				2	2			
	Phase 2	Domestic structures	A580	3	2	6	3	2				
			A855-6	1	2	2	1		3	2		
			A851	1		1	1	1				
	Phase 3	Building XXIX	A900	130	2	7	2	1				
			A950(top)	28	2	5				1		
			A950 (ground)	84	1	7	1					1
			A932	65	4	4	4		1	1		1
		'Long Rooms Complex'	A850 fl. 1	5	1			1				
			A850 fl. 2	12	1	5						
			A850 fl. 4	29	2	2		1			1	
			A850 fl. 5	21		1			1			
			A858 fl. 1	9		1	2					
			A858 fl. 2	12	3	4	1		1			
			A848 fl. 1	6		1	1					
			A848 fl. 2	39	1	7	2	1		1		
			A842 fl. 2	22	2	16	2	1				
		North of Building XXIX	A934	1	1	3			2			
			A953	8	3	2	4	1	2			
			A954	6	13	4	2		3	1	1	
			A654				4	1	2			

Table 6.1 – Synoptic view of all the contexts discussed in this chapter and the ceramic materials found

6.6 Domestic and non-domestic buildings at Arslantepe VII as evidence for a complex social organisation

The contexts presented in this chapter cover the majority of the buildings attributed to Arslantepe VII. Although many areas of the mound are still unexcavated the evidence so far retrieved is a valuable sample of the Chalcolithic settlement of Arslantepe, and it offers enough data to investigate the nature of the social organisation of the community that lived in this settlement.

As discussed earlier (Chapters 3 and 4) architectural monumentality, differential distribution of portable artefacts and particular activities performed in special-purpose buildings can be considered as indicators of social complexity. In the methodology chapter (Chapter 4) I also discussed that architectural monumentality is relative and as such it is detectable by the comparison of different structures within the same settlement. From the above discussion on the buildings of Arslantepe VII it has emerged that the settlement was characterised by different kind of buildings that ranged from the groups of small buildings of the north-eastern sector and some of the buildings of phases 2 and 3 in the western sector to the imposing and monumental buildings of phase 1 and 3. As discussed earlier (see also Table 2.2) the radiocarbon dates argue for a contemporaneity at least between phase VII 'd' in the north-eastern sector and phases 1 and 2 in the western sector; and although it is not possible to suggest more precise correspondence between the different phases, for the purpose of this research, the chronological evidence available is sufficient to compare the two areas.

All the buildings from the north-eastern sector, those attributed to phase 2 and some to phase 1 in the western sector, shared similar characteristics; although the actual layout of the buildings varied a lot even within the same area and the same phase (see for example the differences in the plan between A90/A91 and A21/A22),

all these buildings were relatively small (at least when compared to the large monumental structures of phase 3), their mud-brick walls were never thicker than one meter and they did not always have stone foundations; large circular ovens were often present (phase g, A12, A92, A684, A849) as well as small features like benches and clay basins or small platforms (A11, A12, A682, A856, A853 etc). Most of these buildings had plastered floors and walls and often traces of painted decoration were recorded. Their dimensions, architectural characteristics and internal features make these buildings fit for domestic purposes. This idea is further confirmed, unifying these buildings even more, was the pattern of distribution of portable artefacts. In domestic areas, more than in 'special-purpose' buildings, several different activities were probably carried out daily, and assuming that this would reflect on the assemblage of portable artefacts present in a given building we expected to find a more varied range of items in domestic contexts than in contexts with specific functions. In line with these expectations the assemblages of these presumably domestic buildings were consistently quite varied and confirmed that several different activities took place in their premises, these ranged from storage and preparation of food to consumption of meals. The small structures abutted to the north wall of A900; A934, A953-4 were similar in size, construction techniques and distribution of portable materials to the other 'domestic' structures attributed to Period VII but their stratigraphic association with Building XXIX and the complex with long rooms, the dubious function of A953 that at least at some point was probably used as an oven and the presence of some large cooking pots suggest that these spaces could have been used in the preparation of food and drink to be used in the monumental structures nearby.

In strong contrast to these 'domestic' standards are Building XXV in phase 1 as well as Building XXIX and the 'long rooms' complex' in phase 3. The thickness of their walls, the sturdiness of their foundations, the overall dimensions of these

buildings and their layout make them stand out from the rest of the structures in Arslantepe VII. The layout and function of Building XXV (phase 1) changed during its life-span but at the stage of its original construction, with its thick walls and particularly its large hall decorated with columns, it must have embodied an important function for the community of Arslantepe. Unfortunately the refurbishment of the building cleared out any material remains that could have been used as indicators of the activities that might have been performed in it, nonetheless even in the second phase of use Building XXV still served an important role in the community, as given the evidence provided by the vessels found in the floor of A617, it was partly turned into a store which surely provided for large numbers of people or at least for very affluent social units.

Larger than Building XXV and far more monumental was Building XXIX belonging to phase 3. As described above the exceptional dimensions and the massive foundations of this building are unparalleled in Arslantepe VII and the construction of this building must have required the monopolisation and employment of a really substantial labour force for a period of time. This implied the investment of ample resources by those that promoted and sponsored this construction. The importance of this building, for the purpose of this chapter, is also underlined by the assemblage of portable materials found on the floors of its rooms. The activities performed in them were very specific; this is likely to have included the acquisition, monitoring and re-distribution of food in a controlled environment (as suggested by the presence of the clay sealings associated with the bowls in A932 and A950) and especially the communal consumption of meals by large numbers of people. The evidence suggests that in the premises of Building XXIX were celebrated some form of ceremony that must have involved large numbers of people at once. This building had obviously a very important role in the social and political life of the community for the ceremonies performed in it and also for the visual impact that the structure

must have had in the landscape of the mound and the plain around it, built, as it was, on the highest part of the mound at the time. Almost as large and imposing was the so-called 'long rooms' complex which again was the result of an impressive constructive effort and must have covered some important role in the political and administrative life of Arslantepe VII.

The implications of these observations on my aim to address social complexity in Arslantepe VII will be examined in the following chapter where the main arguments presented in Chapter 4 and the present one will be drawn together in a more comprehensive discussion.

7. Results and discussion

7.1. Introduction

In the present chapter I pull together the various strings of interpretation discussed in the last two chapters. The aim is to refine our perception of the social organisation at Arslantepe VII on the basis of the analyses of the archaeological data as presented in Chapters 5 and 6 and the theoretical approaches and issues considered in Chapter 3.

7.2. The organisation of pottery production: evidence combined

Chapter 5 aimed to identify indicators of social complexity through the analysis of the pottery assemblage. As discussed in Chapter 3, abstract definitions of complexity, at least when applied to human societies, are rarely comprehensive and satisfactory; this realisation encouraged me to look for the dynamics that underlie the social organisation and the practices through which this is structured. The presentation and analysis of Arslantepe VII ceramics draws attention to specific aspects of the production and consumption processes, and it is through the organisation of production activities and consumption that social complexity would have been experienced by the community of Arslantepe during the 4th millennium BC.

Craft specialisation has often been identified as a prerogative of complex societies, and the study of craft production has frequently been used to investigate aspects of social organisation and political economy (see Chapter 3). In the field of ceramic studies this trend has produced several analytical models aimed at identifying craft specialisation through the study of pottery production. Labour investment, scale of production, distribution and morphological standardisation are among the main discriminating criteria used by archaeologists to establish the degree of specialisation of the artisans in comparative studies of ceramic assemblages. It is through the analysis of these characteristics that, in chapter 5, I

have addressed indicators of social complexity in Arslantepe VII ceramic assemblage.

Four main themes were developed across the chapter. After the background introduction of the overall assemblage and the presentation of the functional typology, the focus went on different manufacture techniques detectable in the assemblage; the manufacture characteristics and function of mass-produced bowls; the use of potters' marks; and the analysis of the morphological variability within the assemblage.

7.2.1 Manufacture, marks and bowls. The focus on the organisation of the pottery production

First, I identified the macroscopic differences between the two main groups of pottery, handmade and wheel-thrown/finished, on the basis of their manufacture techniques and general morphological characteristics. In the case of the handmade ceramics I suggested that the irregularity of the pots' shapes, of their walls and surfaces as well as the simple finishing techniques suggested a relative low labour investment which was attributed to a small-scale non-specialised production. In the case of the so called wheel-thrown/finished ceramics, the higher regularity of their wall thickness, surfaces and overall shape of the vases, the frequent slipped and burnished surfaces as well as the use of the wheel in specific phases of the production suggested that higher labour investment and professional skills were involved in their production. Applying the functional classification of the assemblage to the vases from these two different groups I was also able to determine that the two groups of pottery overlapped functionally, which I have interpreted as evidence of the fact that their differences were not related to specific functional needs. This encouraged us to suggest that the two ceramic groups were made in different production contexts by different people.

The hypothesis of different production routines was further enforced by the analysis of the potters' marks present in some of the ceramics in analysis. On the grounds of their distribution across functional categories and time, it was suggested that these marks were related to the production organisation rather than being

indicators of vessels content or capacity. As for the interpretation of the purpose of the potters' marks, two hypotheses were discussed; according to the first, suggested originally by Palmieri (1985) and supported by ethnographic evidence, the marks were used by potters in order to recognise their own products when the pots were dried or fired in communal areas. Trying to explain the longevity of the marks and the complexity of some of the combinations I suggested that the marks might have been part of some kind of numerical system and were used to count the vessels produced in a set period of time (such as in the case of batch markers for corvee labour). However, most pertinent to the present discussion, is the evidence that the potters' marks at Arslantepe VII were only found on wheel-thrown pots.

On the grounds of this combined evidence I suggested that the handmade vases were produced mainly at a domestic level to match the needs of a single household and probably by potters who were not necessarily specialised; while the wheel-thrown vases were presumably produced at a larger scale possibly to meet the needs of a wider group or more discriminating consumers, which could explain the higher attention to their appearances (higher regularity of the profiles and the more labour-intensive treatment of the surfaces). The production of wheel-thrown/finished ceramics at Arslantepe VII probably involved specialised or semi-specialised potters, and required the use of the potters' marks suggesting that potters needed some kind of control system over their product (whether to recognise their products or to check the output volume). The difference between these two ceramic groups became even clearer when I focused on another aspect of Arslantepe VII assemblage, the so-called mass-produced bowls which were widely distributed across the site. From the point of view of manufacture, it was noted that the bowls from Arslantepe VII, mostly produced on a potter's wheel, reflect a large-scale intensive production which probably involved the employment of several skilled potters who worked at the same time to meet the needs of large commissions. As regards the higher attention to the formal aspects of most wheel finished pots, the mass-produced bowls represent an exception as they were probably produced for specific purposes for which almost no attention to their aesthetic appearance was required.

The differences highlighted above, along with the presence of the marks and specific objects like the mass-produced bowls, point to the fact that there was a relative degree of specialisation among the potters of Arslantepe VII and this is crucial for our understanding of the social organisation of the community. Therefore, we can hypothesise that specialised or semi-specialised artisans who worked at one level to meet the necessities of a community beyond the scale of the household but also (when producing mass-produced bowls) worked for clients wealthy enough to monopolise part of the artisan work force. This last observation is further substantiated by other sets of evidence already presented in the previous chapters and further discussed in the following sections such as the presence of monumental buildings and the evidence for redistributive activities.

7.2.2 Analysis of morphological variability. How much can we gain calculating the past?

In Chapter 5 I also attempted to test these ideas analysing the degree of morphological variability measurable in the pottery assemblage. Based on the idea that morphological standardisation is often considered as directly proportional to the skills of the potters (which in turn is associated to their specialisation) it has been argued that relatively more standardised pots are potentially made by artisans undertaking more repetitive work. Hence, it should be possible for archaeologists to detect the presence of craft specialisation in a community from the degree of standardisation of their products. This assumption is not without its shortfalls. Firstly, the mechanical relation between specialisation of the potters and standardisation of their product is not universally applicable as the social perception of the morphological standardisation within a set of products can change according to cultural and economic variables (whether the objects carry a highly symbolic as well as utilitarian function, or whether they are produced for an internal use or for an external market etc.). Secondly, most of the analyses of morphological variability have been modelled on assemblages coming from ethnographic contexts that are not directly comparable with the archaeological record; the analysis of the pots that individual potters make in a limited amount of time is hardly comparable with the analysis of pots produced by an unknown number of artisan over centuries.

Nonetheless analyses of morphological variability are still useful when determining the relative degrees of standardisation between different artefacts within the same assemblage. Thus the morphological analysis of Arslantepe VII assemblage presented in Chapter 5 aimed to test the idea that the potters producing wheel-thrown ceramics were more specialised than the ones producing handmade pots. In the case of the wheel-finished pottery types from Arslantepe VII it seems reasonable to argue that these were specialised potters based on the degree of morphological standardisation and the more intensive production process.

This is particularly the case for the so-called mass-produced bowls that were identified as the most standardised pots within the assemblage. Overall the results of the analysis of the morphological variability seem to confirm the idea that the pots from Arslantepe were produced by potters with different skills and in very different work environments. This result should also be considered in light of the evidence that wheel thrown/finished sherds prevailed in the 'elite' residence Building XXV on the western slope of the mound and, vice versa, the incidence of handmade sherds was predominant in the domestic structures of the north-eastern area (Trufelli 1993) reinforcing the idea that the two groups of pottery were not only produced in different environment but also destined for different markets.

7.2.3 Mass-produced bowls: powerful evidence of complex organisation

The importance of the production process suggested by the characteristics of mass-produced bowls at the site of Arslantepe can be better appreciated when combined with the other implications of the presence of these ubiquitous objects.

As seen in Chapter 5 the interpretation of the function of the mass-produced bowls varies from offering bowls, through bread moulds to food ration bowls. Regardless of the specific function that Arslantepe VII bowls might have covered (see below for more) it is important to reiterate that the hypothesis so far proposed by the various authors entail that these bowls were produced for a central authority and used to perform practices of redistribution or tax collection (see Chapter 5 for

discussion and references). Redistribution implies that some of the surplus accumulated by the elites was redistributed to part of the community possibly in ceremonial contexts in exchange for labour. In the case of the tax collection system we can imagine that tributes were collected by the authorities in the forms of agricultural products 'offered to the deities' (Schmandt-Besserat 2001). Both these interpretations imply that there was an established ruling authority (whether represented by individuals or a segment of the community) that had the ability to amass and/or redistribute financial surplus and the power to mobilise and, at least partly, control the labour of large segments of the population.

In light of this, the appearance of these bowls in Chalcolithic Mesopotamia suggests the development of a new economic system and a new social organisation. This new structure, the economic centralisation of staple goods, went hand in hand with the formation of groups of specialised artisans as well as functionaries and simple labourers who worked for and were (at least in part) maintained by an elite group whose power and authority were established on concrete exploitation and economic control, as well as 'legitimised' by the manipulation of spirituality and religion. Thus, the mass-produced bowls are testimony to an increasing social complexity that would have had very direct implications to the experience of daily life in Arslantepe.

The introduction of these new economic and social dynamics is often associated with the emergence of complex chiefdoms (see Section 3.2.1 for discussion and references) in which leadership became hereditary and social inequalities were hierarchically structured. The relevance of these dynamics is emphasised by Earle who claims that a control over the economy is the most effective way to gain control 'over people's lives' (Earle 1997, 70). Surplus management enables elites not only to re-invest the surplus into the intensification of further production (hence generating a 'virtuous circle') but also to reinforce social inequality through the mobilisation of labour.

This insight in the nature of social organisation at Arslantepe during Period VII is based on the results of the analysis of the ceramics alone. However, the

observations on the structures of Arslantepe VII social organisation are substantiated by further evidence in the following sections as I believe that a more comprehensive picture can be gained combining these ideas with those obtained by analysing the archaeological contexts and the distribution of the ceramic assemblages within them.

7.3. Archaeological contexts, domestic and non domestic buildings: the evidence for monumentality

In Chapter 6 I look for evidence of social complexity through the analysis of the archaeological contexts and the differential distribution of portable artefacts within them.

One of the objectives outlined in my methodological discussion (Chapter 4) was the identification of monumentality in the architecture of Arslantepe as a possible indicator of social inequality or, at least, of settlement organisation. Given that the notion of monumentality is only relative, I compared most of the buildings dated to Arslantepe VII in order to evaluate their function on the base of their formal layout, size and structural features as well as the in situ artefacts. The excavation of Arslantepe VII deposits brought to light a series of structures varying from small domestic contexts to large monumental buildings and suggesting significant differentiation in the type and function of buildings that formed the settlement at the time (Chapter 6).

Drawing on the works of Turkon (2004) and Wattenmaker (1998) it was hypothesised that the portable artefacts found within a building should reflect the range of activities that were carried out in it. According to this approach the range of artefacts on the floor of a domestic structure should reflect a variety of domestic tasks whereas the artefacts in a building with specific functions may be less varied and have special functions. These models were useful in the analysis of Arslantepe VII architectural remains. The possible function of the various buildings was initially inferred on the basis of their architectural layouts and structural characteristics, but

it was interesting to note that the results were quite consistent with the analysis of the distribution of the portable materials found on their floors.

7.3.1 'Domestic' buildings, an over simplified category

Most of the buildings from the two main excavated areas were interpreted as domestic in function for their relatively limited dimensions, specific internal features (such as hearths, ovens, benches and basins) and the wide range of pottery and other *in situ* artefacts that fitted the expectation of a wider range of activities such as those carried out in domestic contexts. On the floors of most of these buildings there was a large range of pots which included vessels for storing, preparing, serving and consuming food and drink. In several cases, these ceramics were associated with other stone or bone artefacts that served a variety of purposes such as harvesting, hunting, butchering, grinding grains, preparation of hides and weaving. These structures were not identical to each other and their layout varied from rectangular, multi-roomed structures to smaller, sub-circular ones. In a few buildings the concentration of large ovens (such as in phase VII 'g' structures in the north-eastern edge of the mound) or the presence of particular artefacts (such as the large cooking pots in the small structures north of Building XXIX: A934, A954 and oven A953) suggest that some of these buildings had more specific purposes supplying supra-household needs. These differences then indicate a significant degree of differentiation among the so called 'domestic buildings' (which is to be expected in a community with social differentiation and some specialisation) and that our use of the term 'domestic' is in fact a flattening simplification of a much more complex picture.

7.3.2 Monumental architecture

Next to these 'domestic' contexts at least three structures were described that for their architectural characteristics and sheer size stood well beyond the average buildings found in the settlement: Building XXV in phase 1; the complex of the long rooms; and, Building XXIX in phase 3. These were built with the intention of being visible above the other contemporary structures. In the case of Building XXV Frangipane (1996) suggested that it was the residence of prominent members of the community, which argues for the existence of a structured social hierarchy; but

the original layout of the building with its large room and columns was transformed in a second phase, and the artefacts found in the rooms from this phase indicated a series of activities such as food storage and preparation carried out at a relatively large-scale. Whether these activities served a large household or a specific segment of the community is hard to define. Interpreting the function of the long rooms' complex through the analysis of portable artefacts also needs to take into account the reuse of the building in subsequent phases. The presence of fragments of ochre and some turquoise like stone as well as several un-used obsidian arrowheads and obsidian flakes suggested that these long rooms were used as ateliers for processing semiprecious stones and for the production of obsidian tools (Frangipane 2001a). The rooms also had a strong concentration of bowls and clay sealings on some of their floors and the presence of cooking and serving pots in others. Thus the artefacts from both of these buildings show that they were used to produce something visibly different from contemporary domestic structures and suggest a display of authority and power by those who financed their construction. Admittedly, large communal buildings could be promoted by collective decision making and produced by communal investment within relatively egalitarian communities, but the presence of administrative tools in some of the structures at Arslantepe and especially the presence of further evidence (see following paragraph) seem to reinforce the idea that select individuals or sectors of the community had the power to mobilise this workforce and invest significant amount of resources in construction and artefact production.

Without doubt this was also true for Building XXIX. Standing on the highest spot of the mound this building was intended to be a landmark in the area surrounding Arslantepe (D'Anna and Guarino 2010) physically conveying its message of power beyond the limits of the settlement. De Marrais, Castillo and Earle argued that monuments not only are able to communicate, to large numbers of people, the leaders' ability to sponsor these large projects but also represent the "*vertical relations*" that structure the community (DeMarrais, Castillo, Earle 1996, 19). The presence of Building XXIX on the mound of Arslantepe was probably crucial in the perception that 'common people' must have had of the power of their leaders. This

is not only an issue for the monumentality of the building itself but also for the activities that were performed within it and their role in defining and maintaining the social relations between different groups of the community.

This last observation leads us to the next section in which the characteristics of Building XXIX are re-discussed in order to address nature of these relations and the dynamics behind them.

7.4. Feasts and monuments: a look at Arslantepe VII social dynamics through the processes of materialisation of ideologies

The analysis of the ceramic assemblage and the buildings of Arslantepe VII discussed so far provide evidence for craft specialisation; monumental architecture; practices of wealth redistribution and economic centralisation. It was also possible to infer from the data that some of the activities were promoted and probably controlled by an elite group that, at least by the end of Period VII, was able to monopolise resources and labour. But how did it all work? Is it possible to refine our understanding of the social and political dynamics behind the relations of power between the ruling group and the various other segments of the community?

In Chapter 3 I referred to some authors that view ideologies not just as an intangible sphere of human culture but also as an important source of social power (DeMarrais, Castillo, Earle 1996; Earle 1997). Ideology becomes a source of power through the process of its materialisation in the forms of symbolic objects, monument and ceremonies. It is this same process that makes ideologies and their use and manipulation potentially visible in the archaeological record. DeMarrais, Castillo and Earle suggest that the privileged media through which ideologies are materialised and manipulated are symbolic objects, ceremonial events, public monuments, and written text (1996, 17). These means are significantly different in terms of the size of the audience they reach, hence the power of the message they transmit and the ways the ideologies they represent can be manipulated. These characteristics along with the different skills, resources and organisation necessary

to create the means of materialisation of ideologies make them a useful set of data to detect archaeologically the “*leader’s capabilities and resources*” (*ibid* 17).

Due to the nature of the archaeological record available for Arslantepe VII, I concentrate on two means of materialisation, ceremonies and monuments. In light of the theories on feasts and materialisation of ideologies I found that the analysis of Building XXIX, the large ceremonial structure in the western edge of the mound, and the practices carried out in it offer a productive line to investigate some of the dynamics that structured the community of Arslantepe during Period VII.

7.4.1 Feasts and their ‘archaeological signatures’ at Arslantepe VII

The important role of feasts and ceremonies in structuring social and power relationships within a community was discussed in Chapter 3. Feasts are privileged occasions for establishing and reproducing specific power relationships among the people that participate in them. These practices of food distribution and consumption create relations of reciprocal obligation between individuals or social segments (Dietler 2001, 74) and at the same time provide an important opportunity to convert symbolic capital into economic capital and vice versa. In other words by investing economic surplus in ceremonial events the hosts are effectively converting their material resources into the symbolic power of increased prestige and reputation; but in the case of work feasts (in which the hosts offer food and drink in exchange for labour) the right of hosting the feast is converted into labour that in turn will produce further surplus (Dietler and Herbich 2001, 246).

In the volume edited by Dietler and Hayden (2001) it is often noted how feasts can serve a number of different purposes and within the common denominator of commensal rituals they are performed in different ways. For this very reason, the archaeological evidence expected from a context where ceremonies have been performed can vary according to the character of the ceremony itself. Nonetheless, Hayden lists a series of “*archaeological signatures of Feasts*” that can be identified in the archaeological record (Hayden 2001). The first factors to be considered are associated with the preparation and consumption of food and drink; food remains and middens, particular vessels for the preparation of large amounts of food and

unusual quantities or types of serving vessels. Aside from these portable remains structural facilities may be found in relation to feasting activities, such as areas for storage and food preparation as well as special structures for rituals and food consumption. Finally, another set of objects that may be found in association with feasting activities includes ritual vessels and other sorts of symbolic objects or representations that can play a role in the materialisation of ideology (DeMarrais, Castillo and Earle 1996; Earle 1997) including pictorial representations of feasts and banquets.

7.4.2 Arslantepe: evidence for feasts in Building XXIX

The evidence from Building XXIX, as described in the previous chapter, corresponds well with the archaeological indicators expected from an area where feasts or ceremonies were performed. Compared to all other contemporary structures at Arslantepe, Building XXIX provides evidence for the “*special location*”, as mentioned by Hayden (2001), where ceremonies could have been performed (see also Helwing 2003). It is by far the largest building found to date at the site (as regards the levels of Period VII). The thickness of the walls, the niches by the corners and the wall paintings with large jars and human figures (Figure 6.27) suggest that particular attention and care were paid to the construction and maintenance of the building, a task that must have required a large investment in terms of mobilization of resources, labour and time. The main room (A900) of Building XXIX, with its large space and the central platform, would have been extremely well suited for hosting large numbers of people during the occasion of rituals, feasts or ceremonies (D’Anna and Guarino 2010). The exceptionality of Building XXIX is confirmed also by the analysis presented by Helwing (2003) who highlighted that, compared to the household scale feasts at the site of Değirmentepe, the size and features of Building XXIX suggest that the feasting practices at Arslantepe “*by far exceeded the household level*” (*ibid* 80) and were taken to a wider scale that clearly involved the entire community. Crucially the portable artefacts found on the floor of the rooms in Building XIXX also match the expected remains of a large feast and suggest that the main activity carried out there involved large congregations of people who consumed meals or drinks in a

context in which commensality represented an important element of the ceremony. Indeed, hundreds of mass-produced bowls were scattered on the floor of room A900 and many more were also stored in large stacks in the two side rooms A950 and A932. Other than that, the only other materials associated with the bowls were some medium-sized jars that were suitable for storing and serving liquids (according to the classification presented in Chapter 5); some funnels and, mainly in room A932 almost two hundred clay sealings (Mezzasalma 2008).

Another piece of evidence attests to the presence of areas for food preparation. In the area adjacent Building XXIX, in A934 and A954 there were at least two of the largest cooking pots found so far. The presence of these pots in the vicinity of context A953, a large circular oven, supports the idea that this area was used to prepare the food served during the ceremonies performed in Building XXIX.

This evidence of feasting at Arslantepe during the 4th millennium BC can lead us towards a clearer perception of the nature of Arslantepe VII social complexity. Following Dietler's argument on the importance of feasts in understanding 'the practices by which individuals create, maintain and contest positions of power and authority' I believe that we need to investigate what kind of social relationships were negotiated during the ceremonies celebrated in Building XXIX in order to address more effectively the dynamics through which the community of Arslantepe functioned. Hence we need to question what kinds of feasts were hosted in this building.

It is clear that feasts have different forms and sizes as they can be promoted by different individuals or groups for different purposes and functions (Hayden and Dietler 2001). But from some of the archaeological remains associated with these events it should be possible to define, albeit approximately, their purposes and nature.

In the case of Arslantepe VII, the presence of the clay sealings in association with the bowls supports the idea that the leading sectors of the community who were hosting the ceremonies closely controlled the 'transaction' of goods involved in the distribution of food or drink during the ceremonies. This seems to suggest that

these ceremonies were not a '*una tantum*' lavish display of wealth but a periodic event in which the surplus invested was duly recorded. This evidence combined with the lack of prestige goods, the use of fairly coarse and undecorated serving vessels and their very large quantities seems to exclude the option that these were "*diacritical*" (Dietler 2001, 85) or exclusive feasts; rather all these characteristics point to the kind of feasts indicated as work feasts by Dietler and Herbich (2001, Chapter 9) and Dietler (2001 Chapter 3) or tribute feasts as in Hayden (2001, 58), Kelly (2001, 239-40) and Schmandt-Besserat (2001, Chapter 14). As suggested by Dietler and Herbich 'work feasts' are at one end of a wide range of work events that see at the opposite end the 'work exchange' events. If the latter are characterised by a relatively small scale and the reciprocity of the work offered; at the other end of the range work feasts are able to mobilise large amount of labour and most importantly, due to the richness of the hospitality provided, the host has no moral obligation of reciprocating the labour (other than with the organisation of the feast) which reinforces relations of inequality between the host and the labourers.

Tribute feasts provide an ideological framework and a ceremonial setting for the rather mundane and functional practice of tax collection. Hayden suggests that tribute feasts tend to be larger than other types of feasts, are normally hosted with calendric regularity and produce large quantities of waste which is potentially visible in archaeological contexts (Hayden 2001, 58).

In light of the above I think that the evidence from Building XXIX could plausibly be explained with either of these two types of ceremonies as the dimensions of the building and the extraordinary quantity of bowls amassed in it leave little doubt as to the extensive numbers of people involved in the ceremonies carried out in the building. Elsewhere I discussed that of the bowls found in Building XXIX about 600 were scattered on the floor of the central room (A900) (Guarino 2008); assuming that the bowls were left on the floor after the last ceremony celebrated in the room we could argue that an equivalent number of individuals had been served. Using the formula of 3.4 standing people per meter² suggested by Fisher (2009) we should conclude that the 126 meter² of A900 could have fitted up to 430 people standing.

Whether these were selected members of the community such as households representatives or adult males or females etc is only guesswork unfortunately.

Defining whether the ceremonies celebrated at Arslantepe were work feasts or tribute feasts is a complicated task. On the one hand, it was noted that the presence of a recording system could suggest the regularity of the transactions carried out during the practice of redistribution; on the other, Dietler and Herbich suggest that work feasts tend to be *'ad hoc'* occasions and not necessarily cyclical events. If both these considerations are right then it should be possible to conclude that Arslantepe VII feasts were not work feasts but rather more similar to tribute feasts. Against this hypothesis though is the lack, in Building XXIX or in its proximities, of substantial storage facilities which would, have been needed to store the product collected as tribute. Although it may well be the case that these structure were not preserved or not yet found it remains an important argument to consider in the determination of the ceremonial practices at Arslantepe VII and ultimately in the economic organisation of the site.

I suggest that work feasts and tribute feasts are not necessarily separated events and could be combined. This could happen in the case in which the tribute was paid in the form of labour by some or all of those present at the feast. This option is to an extent examined by Dietler and Herbich (2001, 244) when discussing the *'obligatory work feasts'* or *corvée* labour; critically they argue that *"Rulers cannot rely on coercive force to motivate participation: any stable, long-term system of labor tribute must rely on the continual production of consent – which means operating through and playing upon the same practices that have symbolic resonance with the population as a whole."*

If we applied this last model to the archaeological evidence from Arslantepe VII it would be possible to explain the apparent regularity of the ceremonies at Arslantepe VII and account for the lack of storage facilities at the site. This interpretation would also match the preliminary interpretation for the use of the bowls in Building XXIX as discussed in Chapter 5. In Section 5.5.2 I accepted the interpretation of the mass-produced bowls from Arslantepe VII as ration bowls (as

used to distribute rations) as the most plausible on the basis of the specific set of correlated evidence. This idea, also based on a statistical analysis of the volumes of the bowls from Building XXIX (Figure 5.16), would further support the hypothesis that Arslantepe VII feasts might have been tribute feasts in which the tribute was paid with labour and the ceremony itself was a symbolic and ritualised form of payment for the workers. In this kind of feast the surplus invested to provide food and drink to the labourers is minimal in comparison with the surplus produced in the long term by the workforce mobilised (Dietler and Herbich 2001, 244).

It is then possible to imagine how these ceremonies, which periodically reunited large numbers of people to receive and consume their ration together, would have served the purpose of legitimising and reinforcing the leaders' authority of exacting the tribute.

7.4.3 Monumental buildings and mass-produced bowls as social landmarks

This last observation takes us back to another consideration anticipated earlier (Section 7.3.2) when discussing the role of monuments in communicating the power of the elites. Building XXIX was not only a physical landmark in the mound of Arslantepe and in the surrounding plain but, in light of its function as inferred in the previous section, it must have been a constant reminder of the social relationships that were created and reproduced during the feasts. For the people receiving and consuming their food rations in Building XXIX, its presence reiterated their role and position in the social map of the community as *corvée* labourer reinforcing the inequality and hierarchy of the society in which they lived (D'Anna and Guarino 2012). In a similar way the mass produced bowls probably become symbols of these events of commensality that served to establish and reproduce power relationships within the community; and therefore the bowls might have subtly become symbols of the 'new' socio-political system. I am not suggesting that the bowls were consciously regarded as medium of transmission of social information but possibly their significant presence in the everyday life of common people contributed in conveying the idea of their economic and political dependency.

Susan Pollock in 2003 suggested that this ‘new contexts of commensalities’ in which people consumed their food with others of the same social conditions (dependent workers), rather than with ‘kinfolk’, was an attempt to “*intentionally disrupt old patterns of commensality and social relations through the creations of new ones. The new ties were those of dependency rather than of intimacy and kinship*” (Pollock 2003, 32). Along similar lines goes the argument made by Bernbeck discussing the life of workers in Uruk Mesopotamia (Bernbeck 2009), he argues that commensality is a fundamental occasion for the development of social relations, hence the frequent practice of sharing rations of food and drink with their co-workers probably created new social bonds among labourers that were not based on the kinship but similar social conditions; and the material symbol of these new bonds were the mass produced bowls (Bernbeck 2009, 55).

Returning now to the concept of materialisation of ideologies it is possible to argue how strong must have been the impact of the feasts hosted at Arslantepe in terms of expressing the power and wealth of the leaders hosting the feasts. But it is quite probable that, as recorded for later periods (Schmandt-Besserat 2001), these feasts were hosted on behalf of some deity and that the whole power structure was partly justified by being embedded in religious belief. There are no elements to prove such hypothesis for Arslantepe VII but it is important to consider it as a possible dynamic created by the leaders of the community to legitimise their ‘rights’ to manage large surpluses and their requests for work.

7.5. Arslantepe complexity across time. A diachronic look at the evidence

Many of the features discussed so far are frequently associated with so called chiefdoms or early states but in chapter 3 I argued that complexity is a matter of degree and its analysis requires attention to detail and comparisons to be appreciated and understood. This is one of the reasons why in this section I compare the evidence from Arslantepe VII with the main characteristics of Periods VIII and VIA. The second reason why I discuss the evidence from the periods that preceded and followed Period VII is that the various aspect of social organisation

described in this chapter are necessarily to be considered as dynamic processes of formation, reproduction and change of relationships, they are fluid practices of power negotiation that need (for as much as possible) to be analysed on a wide time frame in order to be better understood.

Can we identify how and when changes in the social organisation of the communities of Arslantepe came about? Period VII itself is dated from 3800 to 3350 BC therefore encompasses a relatively long time span (some 18 generations) during which the community of Arslantepe has potentially gone through several changes.

7.5.1 Period VIII: more egalitarian or simply less known?

The continuity between Period VIII and Period VII is mainly visible in the 'domestic' architecture and in some traits of the ceramic production. The excavated remains from Period VIII have not yet revealed any monumental structures comparable to those of Arslantepe VII (see Chapter 2). Most of the contexts excavated so far are characterised by the presence of small scale domestic ovens and cooking areas (Balossi 2008). Although the possibility of monumental building not yet excavated, particularly under the surviving remains of Building XXIX, must be acknowledged, there is, as yet, no evidence that the community of Arslantepe during Period VIII was already experiencing forms of social inequality and hierarchy. Also the ceramic production of Period VIII is all handmade with no indicators of craft specialisation. The general impression created by the available data is that the community of Period VIII was less differentiated by economic status and potentially less integrated and less organised than that of Period VII.

7.5.2 Period VII: complexity across 4 hundred years

Through a diachronic look at Arslantepe VII ceramic a remarkable conservatism can be noticed; the distinction of the two main ceramic groups described in Chapter 5 is visible already in the earliest contexts marking a significant difference with Period VIII, in much the same way the morphology of the pots hardly changes for centuries and the potters' marks are present from the earliest phases of the sequence indicating that a clear distinction between two production systems was already in place. Visible change seems to occur only towards the end of Period VII

when the red slip applied on the vases is consistently darker than ever before and small and medium sized jars start being produced with straight necks ‘replacing’ those with out-flaring rims. The only items that show progressive differences across time are the mass produced bowls that change from the chunky, hemispheric shapes at the beginning of the sequence to the thin, conical bowls of the last phases. This transformation seems to trace significant steps in manufacture development from the handmade bowls of the transition phase between Periods VIII and VII; the ubiquitous flint scraped bowls (possibly wheel thrown and hand-finished) and the wheel thrown bowls with evident string cut at the base (and no scraping). As noted in Chapter 5 the bowls found in the latest deposit of the sequence with their thin flattened rims show remarkable similarities with the bowls produced in the subsequent Period VIA.

The visibility of these changes was enhanced by the excavation of the structures belonging to phase 3 (see Chapter 6) which also brought to light some of the most impressive architecture from the whole sequence. The evidence for monumental architecture in phase 1 (Building XXV) suggests that monumentality was introduced in the early phase of Period VII; also the higher position of Period VII levels in the western edge of the mound compared to those in other excavated areas suggests that this area was traditionally occupied by large buildings. (Hence the possibility that Building XXIX might have been built on the ruins of older preeminent structures.) But on the basis of the data available so far it should be acknowledged that direct evidence for redistributive feasting and the use of administrative technology at Arslantepe VII only comes from the large monumental structures dated to the last phase of the period.

Currently Building XXIX and its associated material culture is the first evidence for some of the most important changes in the social organisation of the settlement during the 4th millennium BC. It could be argued though that the changes occurring in the ceramic production and particularly the increased number of wheel thrown bowls (with no scraping) in the final phase of Period VII might have been prompted or just accelerated by the practices of commensality performed in Building XXIX and therefore by an increased need of swiftly produced serving vessels.

This shift towards a more centralised system with an increased control by the elites over means of production and subsistence is also suggested by the analysis of the faunal remains from Period VII. In Chapter 2 it was anticipated that the differential distribution of the animal bones remains in Arslantepe VII contexts offered a useful insight in the dynamics of management and consumption of the livestock in the presence of centralising elites. Across the settlement the presence of pigs is invariably recorded alongside other domesticated animals such as cows, sheep and goats, but, at the end of Period VII, the faunal remains from Building XXIX indicate a significant change in this animal exploitation trend. The percentage of pig bones drops progressively as the sheep remains tend to dominate the sample matching a pattern visible in the following Period VIA (Frangipane 1998). The predominance of sheep is traditionally associated with centralised forms of animal husbandry (due to their higher mobility and the potential to manage them in large herds, and the added potential of secondary products particularly wool) while pigs are more suitable for rearing at the small scale, household level (Zeder 1988; Hesse 1990; Bartosiewicz 2010). The faunal evidence from Building XXIX can be interpreted as evidence of the peculiarity of the meals consumed in its premises but it also adds an important support to the idea that by the end of Period VII the leaders of Arslantepe community were able to select and manage means of subsistence for their own interests and needs.

Most of the changes highlighted in this section set a path that produced new and more complex forms of power and social organisation.

7.5.3 Periods VII and VIA: continuity and change at the end of the 4th millennium BC

The processes of political and economic centralisation identified from the material remains of Period VII developed further in Period VIA. During this phase the power of the leaders probably reached its peak (Frangipane 2001a). This is indicated by a series of changes that can be tracked in the material record. First of all the pattern of animal exploitation is characterised by an even sharper increase in sheep and the drastic decline of pig consumption which is commonly associated

with a more intensive intervention of central authorities in the selection and management of the livestock.

Similarly the leaders' ability to control productive activities, during Period VIA, seems to extend. As suggested in Chapter 5, the disappearance of potters' marks at the end of Period VII might be connected with a direct intervention of the central authorities into the organisation of the ceramic production; I suggested that the marks might have become redundant when the potters started working directly for the authority and only produced on demand (see Section 5.6.2). Also prompted by the leaders' need for prestige objects was the introduction of elaborate metal objects produced by skilled metal smiths. But the degree of segregation and integration of the community is also evident from the presence of other products that, presumably, were not controlled by the elites. Along with the wheel made ware there were two new ceramic groups, both handmade, that belonged to different production traditions (the black burnished ware and the cooking pots) suggesting that the ceramic production occurred in different environments (Frangipane 2001a, 332).

In Period VIA administrative technology was intensively used in the storage areas of the palace; clay sealings with the impression of the seals were applied, removed and stored (as receipts of transactions) were regularly discarded in a nearby dump. Not only the products that came in pots, sacks and baskets were sealed but also the doors of the storage rooms. A detailed study of the administrative technology has allowed the identification of different functionaries that acted at the same time (see Fiandra and Ferioli 1983; 1993; Frangipane Ed. 2007) suggesting an elaborate control system over goods and transactions and a developing stratum in society of administrative officials.

Significant differences in the power dynamics between Periods VIA and VII were also inferred from the layout of Arslantepe VIA palace in comparison with Building XXIX. The spaces and of Period VIA palatial complex were probably designed for relatively small groups as both ceremonial spaces (so called Temples A and B) were smaller than Building XXIX. Presumably the access to the ceremonies was restricted

to selected groups as in the case of diacritical feasts organised to 'reify' and enforce status difference in a restricted context where symbolic power is expressed not through quantities but 'style and taste' (Dietler 2001, 85). This would match with the abundance of objects such high stemmed bowls (D'Anna 2010; D'Anna and Guarino 2012) and the symbolic images depicted along the main corridor of the complex (Frangipane 2001a, 337).

This evidence points to the fact that by the time of Arslantepe VIA leaders did not need to legitimise the labour exploitation with symbolic commensal ceremonies. Possibly the process of formation of new social subjects or 'subjectification' to use Bernbeck's terminology (Bernbeck 2009, 55) was established enough to 'relieve' the leaders from the need of legitimation. Over the generations the reproduction of Arslantepe's social order permitted the open inheritance of wealth, authority and power.

Finally another characteristic of Arslantepe VIA which is not visible in Arslantepe VII materials is the evidence of commercial contacts with the external world. Not only the black burnished ware of Anatolian and Trans-Caucasian tradition indicate consistent contact with a large network of communities that lived in the surrounding areas (see Palumbi 2009) but also the presence of vases made in the style of Uruk pottery or actually produced in Uruk sites suggest that during Period VII segments of the community were involved in far reaching trade networks.

The issue of the relationships between Arslantepe VII and the contemporary eastern Anatolian and northern Mesopotamian settlements will be addressed in Section 7.7.

7.6. The power of social practice

The analysis of the evidence presented so far has shed some light on the dynamics underlying the formation and development of new social power structures during the 4th millennium at Arslantepe. The aim that prompted the analysis presented in this chapter was to refine our understanding of the character of Arslantepe VII social complexity and observations on the organisation of the

ceramic production, the means of materialisation of ideologies and practices of feasting allowed us to better define new power relations imposed by emerging leaders and also the way these new relations might have been perceived by the common people.

Evidence of social differentiation and complexity as identified through the analysis of the pottery assemblage allowed us to recognize the presence of a certain degree of craft specialisation which, in turn, implies a system of economic integration within the community that ultimately provided the specialists with subsistence goods. Potters would not have been the only specialists in the community of Arslantepe; and probably other segments of the community were dedicated to different activities (animal husbandry, hide and textile production, hunting etc.). But along this horizontal segmentation of the community I have been able to detect evidence of vertical and hierarchical diversification.

Some of the evidence presented here could be used to argue for the presence of ambitious and relatively powerful personalities acting within a largely egalitarian organisation. Nonetheless I believe that the combination of several elements described above such as the architectural monumentality, craft specialisation, redistributive practices probably connected to some form of taxation system, the possible presence of an elite residential area (Building XXV), differential patterns of animal breeding and consumption and evidence for administrative control of goods transactions argue for the presence of a structured social hierarchy. And although the lack of evidence for regional exchange of prestige goods suggests that power was primarily achieved and marked through the redistributive role, large monumental structures such as Buildings XXV and XXIX are the direct evidence for the presence of members of the community that were able to amass substantial surplus and capable of reinvesting it in order to maintain and reinforce their power. The authority of the ruling members of the community was established and reinforced by recurrent social practice in the form of ceremonies and feasts. These events were not only means to manage *corvée* work but also effective instruments to define social relationships based on inequality of status between the hosts and the guests.

Further observation on the nature of Arslantepe VII social complexity are discussed in the last two sections of this chapter where the results from Arslantepe are compared with the evidence from other contemporary sites in northern Mesopotamia.

7.7. Arslantepe VII and other key sites in northern Mesopotamia: differences and similarities

In the attempt to better understand the characteristics of Arslantepe's socio-political complexity and the role it played in the formation process of complex societies I briefly look at other 4th millennium sites in northern Mesopotamia that yielded archaeological remains comparable to those from Arslantepe VII. The comparison is based on those elements that throughout this thesis have been used to identify and define complexity, mainly architectural monumentality and craft specialisation but also administrative technologies as indicator of economic centralisation. I will concentrate on three sites, Tell Brak, Hamoukar in the Khabur basin () and Tepe Gawra along the upper Tigris (northern Iraq) where the publication of previous research provides the best opportunity for comparison and defining the role of Arslantepe in northern Mesopotamia, and then consider the network of contacts presented at the end of Chapter 5.

7.7.1 Tell Brak and Arslantepe, similar complexity at the two ends of the size range?

The settlement of Tell Brak, by the end of the 5th millennium, was by far the largest in northern Mesopotamia, the main mound alone covers an area of about 40 hectares but investigations around the mound showed the presence of substantial local Chalcolithic remains suggesting that the actual dimensions of the settlement expanded well beyond the main mound and including all the smaller sites that form a corona around it, the settled area at the beginning of 4th millennium is estimated at around 130 hectares (Oates et al. 2007, 597; McMahon 2011 - paper presented at UCL 14/12/2011). Beyond the staggering size of this settlement the archaeological remains showed the presence of imposing religious and secular

monumental buildings (sector TW levels 18-20 as well as the famous Eye temple¹), these were associated with large workshop or industrial structures (to use the authors' terminology) areas which contained a wealth of non-local raw materials such as flint, obsidian, marble, serpentine, and bitumen (see McMahon et al. 2007); as well as skilfully finished objects (stone and bone tools, spindle whorls, beads, mother of pearl inlays etc); prestigious objects such as a marble and obsidian chalice; along with large storage jars (level 19, associated with the industrial ovens); mass produced pottery and large quantities of administrative material in the form of clay sealings with seal impressions (Oates et al. 2007, 591; McMahon 2007, 163). These industrial structures and the secular building in level 19 and 20 (end of 5th millennium BC) as well as the so called 'feasting hall' and associated court with large ovens in level 18 (beginning of 4th millennium BC) are understandably interpreted as evidence for a very complex social organisation dating a few centuries before any contact with southern Mesopotamian polities; the evidence for large food consumption ceremonies, for controlled skilled labour, for the presence of a class of administrators along with the presence of exotic raw materials and prestige objects suggested that staple and prestige economy played an equal role and were both centrally administered at Tell Brak (Oates et al. 2007, 598). The strength of the central power at Brak is further substantiated by the symbolism used in the seals such as those in which battles with lions and lions in a cage are hinting to the ability of control and total power of the elites (see discussion on some seals from Tell Majnuna in McMahon 2009). This is evidence associated with the scale of the high mound and the extent of satellite sites around it obviously helps appreciating the urban scale of the socio-political complexity at Tell Brak leaving no doubts on the centrality of its role in the surrounding region.

Even this very brief synthesis of the remains from Tell Brak makes it apparent that the main issue in a comparison with Arslantepe VII is the scale. The mound of Arslantepe is roughly a tenth of the high mound of Tell Brak (4 versus 40 hectares) and as mentioned above recent survey and excavations showed the presence of a

¹ For the monumental structures in TW see Oates et al. 2007 and McMahon et al. 2007. For the Eye temple see Mallowan 1947 as well as Oates and Oates 2002.

much larger area of occupation around the latter. Unlike the area surrounding Tell Brak the survey carried out around Arslantepe seemed to indicate only the occasional presence of Late Chalcolithic materials and definitely not an intensive pattern of occupation. And although occasional investigation of alluvial deposits around the main mound seems to suggest that other occupied areas around Arslantepe might have existed (see previous section), although they have contemporary occupation and some similar characteristics, Tell Brak operates at a much larger scale and exhibits more signs of prestige and social hierarchy than Arslantepe. There is an apparent lack of prestige objects at Arslantepe VII, and although on the floors of the long rooms' building were found fragments of exotic raw materials suggesting more long distance trade and sponsored production, these do not compare with the quantities and concentration of the remains found at Tell Brak. If the presence of the elite at Arslantepe VII is 'inferred', at Brak it is 'visible' in the prestige objects and the glyptic iconography. Ultimately even if Arslantepe presents evidence for economic centralisation, ritualised tax exaction and labour monopolisation, the scale at which the same kind of evidence is found at Tell Brak implies a significantly higher degree of complexity as it suggests that the number of individuals involved in the administration and management of the system must have been far greater than at Arslantepe VII.

7.7.2 Hamoukar, another regional centre in the Khabur basin

The investigation at Hamoukar, in the eastern border of the Khabur area, uncovered the remains of a burned complex of 4th millennium tripartite buildings with large amounts of administrative materials; food preparation facilities such as grinding stones, ovens and cooking pots; exotic raw materials such as obsidian and the remains of a city wall (Gibson et al. 2002; Reichel 2006). A recent survey suggests that the site of Hamoukar might have expanded to as much as 50 hectares already by the end of the 5th millennium, LC1-2, (Ur 2010, 96) and was still 50 hectares during mid-4th millennium - LC3-4 (ibid 100 – see discussion of Period 5B in section 6.3.1) mirroring the pattern visible in Tell Brak where a vast centre was probably at the core of a large territorial system of hierarchically organised settlements. The remains from Tell Hamoukar provided evidence for centrally

controlled and administered storage, food preparation for non-domestic purposes, long distance trade exchange and even defensive structures around the main mound. These features combined have been interpreted as evidence for a strong central power capable of commanding a large workforce for the construction of the imposing city wall and that administered the activities of a large urban and rural territory. The striking evidence from Hamoukar and Tell Brak offers an impressive picture of the 5th - 4th millennium BC in the Khabur basin. The large plains in this area witnessed the development of possibly the earliest urban centres in the Near East; large chunks of the population lived concentrated in an urban context and powerful leaders through the work of a class of administrators managed and provided for artisans and labourers that were needed in town in a system that grew increasingly complex and integrated.

Drawing on Weiss (1986), Ur suggests there are strong environmental reasons why the vast plains of the Upper Khabur was able to produce more yields than southern Mesopotamian alluvium where the geomorphologic characteristics of the plains restrict the highly productive lands to the immediate vicinities of the river itself leaving the soils beyond this area particularly saline, and poorly drained and ultimately not particularly suitable for agriculture (Ur 2010, 11). These observations are extremely relevant when looking for factors that contributed to the unparalleled expansion of the sites in this area. Ur's survey '*demonstrated that the eastern Upper Khabur basin supported one of the highest densities of settlements with non-local Uruk ceramics recognised at present*' (*ibid* 150).

Again the dimensions of Hamoukar make it virtually incomparable with Arslantepe. Even assuming the presence of a ruling elite and a social organisation structured in the same way as those of 5th-4th millennium Brak and 4th millennium BC Hamoukar the scale of complexity reached in the Khabur is much larger than at Arslantepe. This is crucial for a correct assessment of the dimension and the reach of the power exerted by the elites of Arslantepe VII.

7.7.3 Tepe Gawra a small site with strong evidence of hierarchical social structure

To the east of Hamoukar, along the Iraqi Upper Tigris is Tepe Gawra, another Late Chalcolithic settlement that offers exceptional insight in our understanding of development of complex societies in the Near East.

Unlike the last two sites presented, Gawra is only 1 hectare large but excavations at the site have exposed a sequence of late 5th – early 4th Millennium occupational phases that illustrate the diachronic changes at the site and the way these changes actually reflected the changing forms of societal organisation from an almost egalitarian to a strongly hierarchically structured society (Tobler 1950; Rothman 2002; Frangipane 1996; Butterlin 2009). The relatively homogeneous social structure of the Ubaid phases seems to be reflected in the layout of the settlement which included a series of domestic buildings of similar shape and size. This layout gradually changed with the construction of monumental structures with public and administrative functions; their presence, with time, became progressively more marked suggesting a social diversification of the community. Towards the end of the 4th millennium domestic structures are in fact absent from the mound which then resembled a sort of acropolis with a series of large buildings with specific administrative functions and workshops (Frangipane 1996). A similar pattern is visible in the burial practices on site. The simple burial of children under the houses' floors of the early phases of Gawra were eventually replaced, towards the end of the sequence, by mud-brick built burials with extremely rich grave goods; these included gold, silver and lapis lazuli. Interestingly very rich grave goods were also found in childrens' burials suggesting that status differences privileges were now inherited at birth; a trait that is generally associated with complex chiefdoms (Flannery 1972). These remains are a unique case for Late Chalcolithic sites where burials offering evidence of status differentiation are rare finds.

Despite the dimensions of the settlement Rothman argued that Gawra was “*the centre of a small, independent network or polity*” (Rothman 2002, 11) and admittedly the evidence for administrative activities, differential status burials, long distance trade of exotic goods is solid ground to argue for the presence of a

structured and powerful elite group. The lack of information on the area surrounding the site makes it harder to understand the role of such a small centre in its territory, according to Rothman it is unlikely that Gawra was “*a secondary centre under the administrative control*” of a larger site such as Nineveh on the basis of the fact that the material remains from Gawra seem to show more similarities with other small centres in northern Mesopotamia than with Nineveh and in the light of this evidence it should be possible to imagine a structure where small centres can be autonomously organised (*ibid*).

Arslantepe and Tepe Gawra shared the evidence of monumental architecture and centralised administrative practices and both of them were significantly smaller than the two large urban settlements in the Khabur basin. Their role in the region is difficult to argue in the absence of clear evidence from their surrounding territories. Were these sites independent regional centres? Is it reasonable to imagine that they played the same leading role that is assumed for sites such as Brak or Uruk Warka but only on a smaller scale? It is difficult to explain the role of these two smaller settlements within the theoretical framework for hierarchical levels of control and decision making suggested by Wright and Johnson’s (1975) model for state formation. These difficulties should perhaps encourage us to address the intrinsic variability in the process of formation of complex societies. The cases of Arslantepe and Gawra challenge the assumption that the development of a centralised economy and regional control could only be exerted by the very large urban centres.

7.8. The role of Arslantepe VII in the ‘making’ of Mesopotamia

7.8.1 Urban and non urban communities, a matter of scale?

It is often remarked how social complexity and integration are directly related to the formation of urban centres; population concentration is often seen both as a result and a condition of socio-economic integration of the community (Childe 1950, 4). Significant concentrations of people that did not produce their own food

and were specialised in crafts, trade and administration of power needed to be supported by the surplus provided by land labourers and for this reason urbanisation is also associated with more intensive agriculture and an increase in land exploitation and extraction of surplus by the ruling elites (Childe 1950). In Chapter 3 it was noted how the appearance of large settlements is one of the characteristics of 4th millennium BC Mesopotamia.

This is a critical topic in our understanding of Arslantepe's role in its surrounding territory and within the network of relationships that were already experiencing the influence of southern Mesopotamian polities in most of northern Mesopotamia including the Khabur plain () and the Upper Euphrates region south of the Taurus Mountains. Although during Period VII the site expands in all directions, it does not extend beyond 4 hectares. The important innovations in the social and political organisation visible from the beginning of Period VII to its end are not accompanied by a significant expansion of the site into an urban centre.

One of the main issues here is the meaning of the terms 'urban' and 'urbanism' and, whether these categories actually help our understanding of the role of Arslantepe during the 4th millennium BC in the northern outskirts of Mesopotamia.

In a paper specifically aimed at exploring these concepts Cowgill (2004) suggests that there is not a single feature that can define "*cities from non-cities*". Criteria such as the size of the settlements, the use of writing or the presence of public buildings have been used to the purpose but none of them alone are adequate to describe urbanism. According to Cowgill it seems more appropriate to think of urbanism as a "*cluster of variables that can be measured (if only roughly) on ordinal or interval scales, rather than as a discrete category*" (*ibid* 527). And although it is generally agreed that the community of an urban centre must be large enough to support the elites and the specialists it is never quite clear how much is 'enough' (see for example Cowgill 2004, 527-28 and Hayden 1994, 201). Only when these variables are considered in relation to other settlements within the same territory or region can the scale of a settlement and its potential influence over other sites be assessed. In an attempt to get closer to a definition Cowgill suggests that "*cities*

are typically political, economic and religious centers for a surrounding territory and loci for wider ranges of specialized production and services than are found elsewhere in the region” (ibid 527). Admittedly, this statement remains non-specific but it highlights a focus on the relations between the centre and its territory and region.

In looking for alternative explanations for the limited dimensions of Arslantepe and the role of Arslantepe VII in its territory I found useful insights in a volume edited by Schwartz and Falconer (1994) on the development of complexity through the evidence from rural settlements. This volume switches the focus from the powerful but often non-self-sufficient urban centres to the range of relationships of these centres with the countryside that sustained it (Hayden 1994, 198). Several cases are presented in which evidence for craft specialisation, architectural monumentality and administrative activities were found in non-urban settlements although somehow always induced by direct relationships of interdependence with the main centres (see for example the case of Tel al Raq-ai discussed by Schwartz (1994)). The volume also sheds light on the range of possible dynamics of contacts between different sites which is potentially extremely useful in the interpretation of the nature of the relationships between Arslantepe and other contemporary sites. However, it was difficult to apply any of the models proposed in the volume to the case of Arslantepe VII because they all assumed the presence of a larger centre that determines hierarchical relationships, trade, and the exploitation of land. Yet there is no evidence that Arslantepe was a secondary centre under the control of a larger urban centre; the recent survey from the Malatya plain to the south-western bank of the Euphrates identified Arslantepe VII as the largest settlement in the plain (for further discussion and reference see Section 5.8.2). Unlike Gawra, that has contacts with much larger settlements such as Hamoukar to the west and Nineveh to the east, there is no evidence of comparably large, Late Chalcolithic centres in the area north of the Taurus Mountains.

This indirectly leads me to consider the influence that the environmental characteristics of the region had in the economic strategies applied by past communities settled in the area. A number of studies have discussed how the large

Mesopotamian plains are potentially more productive than relatively smaller intermountain valleys or plains and how this might have favoured the growth and expansion of larger centres in the Khabur as well as in the Mesopotamian alluvium (Adams 1981, Algaze 2001, Ur 2010, Frangipane 1998). Even if we were to concede that Arslantepe was a large settlement, relative to its region, and assume that its wealth might have also benefited from the obsidian or timber trade routes towards southern Mesopotamia, it was still only a fraction of other contemporary sites in suggesting that the volume of administrative activity, surplus and labour monopolised were lower as well.

7.8.2 Arslantepe and its neighbours, was it a hierarchically organised network?

In light of the apparent lack of a significantly large centre in the regions north of the Taurus during the Late Chalcolithic 3 and 4 (Period VII at Arslantepe) it could be suggested that the political organisation of the area was structured around a series of relatively small sites that presumably respected each-other's territories exploiting the diversity of available resources and possibly specialising accordingly. Nonetheless, the elite of Arslantepe VII was probably able to control a significant part of the economic activities of the surrounding plain. Arslantepe VII pottery has been found in fourteen other sites in the plain of Malatya (D'Anna *et al.* 2008) but, to date, Arslantepe remains the only settlement with evidence for redistribution/tribute collection practices as well as administrative technology. Also the evidence from the following Period VIA when the predominant role of Arslantepe in its territory is confirmed by several other pieces of evidence (presence of central storage areas, high volume administrative activities, ceremonial buildings and highly skilled metallurgy, among others) reinforces an interpretation of the evidence from Arslantepe VII as representing an initial phase of groups at the site having the economic and political control of the plain of Malatya.

The survey project in the areas around Arslantepe was aimed at defining the relationship between this site and both its immediate territory and the surrounding region (see Section 5.8.2). Although relatively little is known about the settlement pattern in the plain immediately around the mound of Arslantepe, the evidence

produced by the intensive survey around the site has shown that there were at least five other occupied settlements (these are included in the fourteen sites cited above) in the vicinity of the main mound. Also, given the available information on the alluvial deposits of the plain to the north of the main mound, it seems reasonable to believe that some of the Chalcolithic remains are still covered by these deposits and, therefore, it is possible that the occupation of the plain was more intensive than it now appears.

If we again consider Arslantepe VII in relation to Tell Brak and Hamoukar in the Khabur plain or Uruk Warka in the southern Mesopotamian Alluvium, then in spite of the 'non-urban' character of Arslantepe it nonetheless maintained a central role in the region of Malatya where it was unmatched in size, and was able to exercise control over a number of smaller settlements (Frangipane 2009, 139). But north of the Euphrates, in the Altınova plain and Keban area (Elazığ province), there is evidence for several other settlements of various sizes and features that show no signs of being under the influence of Arslantepe. The cultural contacts between the areas of Malatya and Elazığ are not easy to interpret in terms of the influence of one area over another as there is no evidence that allows us to identify the nature of these relationships.

From the strong similarities between the mass-produced bowls and some necked jar profiles of Malatya and Elazığ it can be inferred that there were shared technological knowledge and practices at the level of specialised or semi-specialised pottery production; these, in turn, must have reflected the new practices of communal consumption and related storage needs introduced along with a centralising economic system and the connected power relationships that maintained it. But where did these new technological trends start? And how was this knowledge shared among potters from different sites? Given the specific function of some of the items produced (such as the mass-produced bowls) could it even be suggested that some potters 'served' the needs for more than one elite group?

Similar questions on the nature of the relationships between different areas are raised by the affinities noted between Arslantepe and the Kahramanmaraş and Adyaman areas. As discussed in the last sections of Chapter 5 the similarities, in these cases, seem to refer mainly to domestic customs related to food preparation practices (except from a red slipped necked jar). As such, these traits seem to be based on deeply rooted cultural traditions and, unlike the use of mass-produced bowls, they were probably unrelated to the food preparation and consumption practices introduced by the new powers associated with the large buildings and public feasting.

Recent evidence from sites such as Tell Brak and Hamoukar provide better cases than Arslantepe VII to dismiss the hypothesis that Uruk expansion stimulated complexity in northern Mesopotamia. Their dimensions and the complexity of their social organisation, which is already evident at the end of the 5th millennium BC, are unarguable proof of the fact that when Uruk people arrived to the plains of Khabur they encountered the power of societies that were already highly centralised and integrated. However, it is the distinctive character of Arslantepe that makes it a source of useful information about the process of development in Greater Mesopotamia. Even if we consider its role within the small communities north of the Taurus Mountains, the degree of administrative control over the economy was already a fundamental tool of the elite's power which, however, had a relatively short territorial scope when compared with contemporary n sites.

7.8.3 Arslantepe VII, northern Mesopotamia and the theoretical debate

As discussed in Chapter 3 the neo-evolutionist models that account for the development of complex societies and state formation processes (Flannery 1972; Fried 1967; Sahlins 1972; Service 1962) are certainly relevant to the analyses of a site like Arslantepe VII but that is until it becomes clear that not all the ticked boxes belong to the same list. In other words following the definitions of chiefdoms and states Arslantepe VII would appear to be either an emergent chiefdom with some strikingly complex features or a very small and rather 'immature' state. This would be like saying that the evidence from the settlement of Arslantepe and the

surrounding region does not match either of the two social categories. In the case of the present work it was possible to overcome these interpretive problems using theories on craft specialisation, materialisation of ideologies and feasts. Addressing the social dynamics and the resulting power relationships between different sectors of the 4th millennium community at Arslantepe it was possible to discuss the nature of the social organisation avoiding inadequate labels.

The difficulty of adapting to theoretical models and labels is probably common for many other sites stuck in-between definitions and, to an extent, I believe this is also the reason why the debate on complex societies has changed and developed incorporating wider theoretical influences (see Chapter 3 for discussion).

The attention on the relationship between organisational structures and the social needs of different actors allows us to address the human agency and social dynamics that could have driven state development. The fluidity of these situations and the variability of the archaeological evidence cannot easily be constrained within static definitions of evolutionary developmental stages, and I think that the analysis of Arslantepe VII has provided further evidence of the necessity of flexible approaches in order to find out more about the past communities under study.

A comparative approach remains indispensable in order to appreciate patterns of similarity and variability in human choices on a wider scale and to understand the relative nature of most of the heuristic categories that we use constructing our narratives. Nevertheless, concentrating our analysis on the specifics of a settlement in order to assess the social dynamics and practices that were at play, such as the role of tribute feasts within the community of Arslantepe VII, takes us closer to the human actors that created the sites and monuments that we attempt to understand through more universal categories such as 'complexity' or 'urbanism'.

8 Conclusions

8.1 Introduction

This research set out to investigate the nature of social organisation at the Chalcolithic settlement of Arslantepe (Period VII) through the analysis of a series of archaeological indicators of social complexity. Greater Mesopotamia during the 4th millennium BC was the stage of very significant changes in the development of some of the earliest complex societies so far recorded world-wide; and within the framework of 4th millennium BC Mesopotamia the site of Arslantepe developed into what might have been a small but relatively powerful regional centre (Frangipane 2009). The numerous theories and approaches on social complexity and emergence of complex societies in Mesopotamia were acknowledged and discussed with the intention of developing these in the specific context of Arslantepe. I have described and analysed key features of the material remains of Arslantepe VII in order to identify spatial differences in activities that shaped the community's social organisation. The aim has been to go beyond the uncritical use of external models of social evolution and restrictive definitions of 'complexity'. The wealth of academic work already carried out on the Chalcolithic horizons of Arslantepe provided a solid starting point to attempt a more detailed analysis of the specific nature of the practices that shaped Arslantepe VII's social complexity.

8.2 Original contributions

From the analysis of the theoretical debate on complex societies (Chapter 3) I highlighted the dangers of imposing universal models for the different forms of social organisation and assumptions about their formative processes. Far from denying the importance of these models for the development of the discipline I nevertheless argued for the importance of considering the variables that can occur in the field of human behaviour. In line with this I explored the specific traits of Arslantepe VII community through the analysis of different sets of available data in order to address the social practices and dynamics through which the community was organised and the way these practices and dynamics changed across time.

Informed by this theoretical approach I developed and applied methods of analysis that have not been tried on Arslantepe VII including; the combination of architectural analysis, ceramic analysis, analysis of spatial patterning, and focusing on an important period of transition to assess how Arslantepe social organisation changed across the 4th millennium BC. In order to carry out this research I recorded and analysed a wealth of unpublished data which was combined with all the other data available for Arslantepe VII. For instance most of the monumental buildings found at the site had already been published in general publications (Frangipane 2001a; 2003) but the initial interpretation of their function was here reassessed and reviewed on the basis of the thorough quantification and distributional analysis of the artefacts found within these buildings.

As mentioned in Chapter 5 the typology of the ceramic assemblage had already been prepared by Trufelli (1993) but it was here reviewed in light of the ceramic materials excavated in the last twenty years. Also for the needs of this work specific attention was paid to the functional characteristics of the ceramic assemblage with the creation of a functional typology which has been a fundamental tool in the definition of the activities carried out in the various buildings analysed in Chapter 6. I also assessed the technology used for pottery production and identified two distinct types of ceramic manufacture (and the consequent distinction of two ceramic classes). These two modes of production together with the analysis of potters' marks proved pivotal for my identification of local craft specialisation and the organisation of the ceramic production which, in turn, generated key arguments for the discussion on economic and cultural differentiations within the community of Arslantepe VII.

My analysis of the potters' marks led to a new interpretation of the possible use of these signs to monitor and quantify the potters' production. This is directly connected with the results of the analysis of Coefficient of Variability carried out for the first time on Arslantepe ceramics which suggested a high degree of standardisation. Together these observations offered crucial insights on the analysis of the organisation of ceramic production and the degree of specialisation amongst and between the different groups of potters working at Arslantepe. This discussion

was further informed by and, at the same time, influenced the analysis of the mass-produced bowls which proved to be a key case study for addressing production organisation and techniques.

Finally the analysis of differential distribution and consumption of the artefacts across the site of Arslantepe in relation to the architectural context within which they were found has proved to be a valid cross-referential tool to interpret the possible functions of specific contexts and provided a more fine grained understanding of the settlement organisation of Arslantepe.

The combination of these different methods has allowed me to address the issues of economic integration within the community of Arslantepe and the processes of redistribution. The hypothesis of a redistributive economic system at Arslantepe is certainly not new (Frangipane 2001a; 2002; Guarino 2008) but in this work, through the analysis of the scale and frequency feasts and ceremonies, I re-discussed it addressing the ways in which the distribution worked, who was involved in it and in what ways this system affected (created and periodically reproduced) the social relationships and the power-negotiation dynamics between different members of the community.

I believe that this thesis has also provided important insights on a wider scale, beyond the limits of the site of Arslantepe itself. The review of the materials from survey projects undertaken in the surrounding of Arslantepe provided a new look at interregional contacts during the 4th millennium in south-eastern Turkey and most importantly it produced evidence of previously unnoticed contacts between Arslantepe and the Keban and Kahramanmaras areas. Also I addressed the usually generic definition of these connections and discussed their nature and characteristics in order to understand what generated and maintained the relationships between different sites or areas within the range of the Anti-Taurus Mountains.

These observations and a direct comparison of Arslantepe VII with some key sites in northern Mesopotamia allowed me to take a new look at the role of Arslantepe within the framework of the socio-political changes that occurred in Mesopotamia

during the 4th millennium BC. The data from Arslantepe VII and the other sites considered here confirmed and reinforced the idea that substantial changes, with increasing hierarchically societies, had been taking place in northern Mesopotamia before the expansion of Uruk-related culture; but also, the comparison of Arslantepe with Tell Brak, Hamoukar and Tepe Gawra provided evidence of the high degree of variability that characterised the emergence of complex centres in northern Mesopotamia. Finally, the way in which the indicators of complex organisation are combined in different sites has proven that theoretical models of state formation need to take into account the high degree of variability present in human societies and should always be applied in combination with a specific analysis of social practices and dynamics at individual communities before expanding our analysis into interpretation of the bigger picture.

8.3 Shortcomings and suggestions for future research

Unarguably some of the analysis and arguments presented in this thesis would have benefited if further data had been available. For instance the classification of the ceramic classes has not yet been assessed by petrographic analysis; such analysis could potentially be used to assess and develop the observations I have made regarding the organisation of ceramic production. Also, although I tried to integrate architecture and ceramics with summarised information on other categories of finds, I was not able to integrate this with a detailed understanding of the primary economy of agricultural production. Although we have some analysis of faunal remains, we have limited information of animal herds and no information on crop production. This is unfortunate as food production is the central focus of a redistributive economy and the relationship between agricultural workers, crafts people and administrators is usually at the core of social differentiation. Currently there is very little archaeobotanical analysis available from Arslantepe VII and no contemporary field systems have been identified in the hinterland of Arslantepe, but it is hoped that future environmental research and survey work will be able to address this gap. It would be desirable to gain a better understanding of the potential productivity of the land in relation to the settlement size and the number

of inhabitants, and whether any intensification in agricultural production took place before, during or after the emergence of the redistributive system.

I have suggested that there was a significant increase in redistributive practices during the final phases of Arslantepe VII. But this is based on the fact that the only large scale ceremonial building was found at the end of this period, which also saw the production of large numbers of the 'mass-produced' bowls. New excavations at Arslantepe and further work in the plain of Malatya could provide evidence for similar buildings belonging to phase Period VIII or earlier and push the development of the redistributive economy back in time. Whether or not further large buildings are identified, a better understanding of Period VIII is essential if we are to understand the speed and scale of change in the social organisation and economy of Arslantepe.

Finally, the preliminary observations on the geological deposits that form the plain of Malatya suggest that our perception of the settlement patterns in the plain is still fairly limited and as a result any discussion on the size of Arslantepe and the influence that it had over other site in the plain remain relatively vague. An intensification of the efforts in the study of the settlement patterns in the plain of Malatya would significantly improve our understanding of the role of Arslantepe in its territory. Another path to follow would be a reassessment of the materials found during the surveys in the other areas surrounding the plain of Malatya to address more fruitfully the nature of the supposed networks of contacts discussed in Chapter 5, there is also a potential to do more materials analysis to investigate the source of production and routes of artefact distribution.

The further avenues for analysis suggested above could greatly enhance our knowledge of the social practices that under-wrote the economy and social structure at Arslantepe. This would enrich the approach advocated by this thesis in trying to gain a more detailed understanding of the local practices through which social differentiation and complexity developed. This can contribute to the more nuanced approach that is beginning to emerge in our research into the fundamental social changes that reshaped society in Chalcolithic Anatolia. By comparing the

specific practices at key sites such as Arslantepe, Tell Brak, Hamoukar and Tepe Gawra we can better understand the role that relatively small sites such as Arslantepe had in the formative process of early complex societies in the Near East.

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